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ENVIRONMENTAL ASSESSMENT BOARD



ONTARIO HYDRO DEMAND/SUPPLY PLAN HEARINGS

VOLUME: 77

DATE: Wednesday, October 30, 1991

BEFORE:

HON. MR. JUSTICE E. SAUNDERS	Chairman
DR. G. CONNELL	Member
MS. G. PATTERSON	Member

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ENVIRONMENTAL ASSESSMENT BOARD
ONTARIO HYDRO DEMAND/SUPPLY PLAN HEARING

IN THE MATTER OF the Environmental Assessment Act,
R.S.O. 1980, c. 140, as amended, and Regulations
thereunder;

AND IN THE MATTER OF an undertaking by Ontario Hydro
consisting of a program in respect of activities
associated with meeting future electricity
requirements in Ontario.

Held on the 5th Floor, 2200
Yonge Street, Toronto, Ontario,
on Wednesday, the 30th day of October,
1991, commencing at 10:00 a.m.

VOLUME 77

B E F O R E :

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DR. G. CONNELL	Member
MS. G. PATTERSON	Member

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1 ---Upon commencing at 10:00 a.m.

2 THE REGISTRAR: This hearing is again in
3 session. Be seated, please.

4 THE CHAIRMAN: Mr. Campbell.

5 KEITH DOUGLAS BROWN,
6 PAUL FRANK VYROSTKO,
JOHN KENNETH SNELSON; Resumed.

7 MR. B. CAMPBELL: Mr. Chairman, just
8 before we start today, if we could please, I am advised
9 by Mr. Vyrostko that he has a correction to make to an
10 answer which he gave you yesterday. It is at Volume 76
11 of the transcript, page 13657. If it is satisfactory
12 to the Board, I would ask that Mr. Vyrostko speak to
13 that matter now.

14 THE CHAIRMAN: Mr. Vyrostko.

15 MR. VYROSTKO: Mr. Chairman, with respect
16 to yesterday's transcript you asked me a question on
17 the new guidelines we are proposing for non-utility
18 generators. And we had one of the guidelines that
19 dealt with existing projects and how we would deal with
20 dispatchability.

21 And you asked a question whether an
22 existing high-efficiency cogeneration project would be
23 treated differently; in other words, we would treat a
24 new high-efficiency cogen with an old high-efficiency
25 cogen, and I said we would treat those two

1 high-efficiency cogens similarly.

2 It is my understanding now that that is
3 not correct. We would treat all existing projects
4 whether they are low efficiency or high efficiency in
5 the same way, and we would treat new projects in the
6 same way. So we are distinguishing between existing
7 projects and new projects.

8 THE CHAIRMAN: In the case of new
9 projects you have to have the reference base and then
10 you are entitled to add addition megawatts of
11 dispatchability on a matching basis; is that....

12 MR. VYROSTKO: That's correct.

13 THE CHAIRMAN: Now how do you treat the
14 existing projects.

15 MR. VYROSTKO: The existing projects --

16 THE CHAIRMAN: That meet the 6,600 high
17 efficiency test?

18 MR. VYROSTKO: We would treat existing
19 projects, whether they meet the new efficiency standard
20 or not, in the same way and that is that if they wanted
21 to increase an existing project with dispatchability,
22 they would have to for every new megawatt of dispatch
23 they would also have to give us 1 megawatt of old
24 dispatch as well.

25 And that's trying to ensure that we don't

1 have too many of the new projects trying to increase
2 the size just to give us dispatch and take away some of
3 the opportunities that maybe some of the new projects
4 would have.

5 THE CHAIRMAN: All right. Take for
6 example the 350 megawatt major supply NUG as an
7 existing project, it may not be considered an existing
8 project but assume it was for the purpose of the
9 question, it doesn't meet the high-efficiency test as I
10 understand it?

11 MR. VYROSTKO: That's correct. That's
12 correct.

13 THE CHAIRMAN: Would it be able to get
14 the ability to increase its output provided it was
15 dispatchable under the new guideline?

16 MR. VYROSTKO: Yes, under the new
17 guidelines, the 350 megawatt project that you are
18 referring to would be able to give us dispatchability.
19 But for every new megawatt of dispatch they give, they
20 also have to give us from their existing 350 megawatts
21 dispatch as well.

22 THE CHAIRMAN: Yes. Fine.

23 Mr. Mattson.

24 MR. MATTSON: Thank you, Mr. Chairman. I
25 appreciate your allowing me to schedule in this morning

1 and I apologize for any inconvenience it caused you
2 yesterday.

3 THE CHAIRMAN: No inconvenience.

4 MR. MATTSON: I have filed two separate
5 documents with you this morning that I will be
6 referring to during cross-examination and perhaps we
7 can make those exhibits at this time.

8 The first one is entitled the OEB
9 material. It is a package of....

10 THE REGISTRAR: That will be No. 350, Mr.
11 Chairman.

12 ---EXHIBIT NO. 350: OEB material.

13 MR. MATTSON: And Mr. Chairman, there are
14 a number of hearings, transcript pages from different
15 hearings there, and I have numbered them all for
16 convenience throughout on the top in the right-hand
17 corner.

18 The second exhibit is entitled "Two
19 Energy Analects articles."

20 THE REGISTRAR: That will be No. 351.

21 ---EXHIBIT NO. 351: "Two Energy Analects articles."

22 MR. B. CAMPBELL: I'm sorry, Mr.
23 Chairman, I didn't get the exhibit number for that.

24 THE CHAIRMAN: The second one will be
25 351.

1 MR. MATTSON: Mr. Chairman, finally, I
2 believe that we have sent you over some pages with all
3 the transcript references that we might be referring to
4 this morning.

5 THE CHAIRMAN: Yes, we have that.

6 MR. MATTSON: Thank you.

7 CROSS-EXAMINATION BY MR. MATTSON:

8 Q. Now, if I could, panel, I hope to be
9 very brief this morning and a number of these issues
10 have been covered obviously by other intervenors. And
11 I hope it doesn't seem as though I am jumping around
12 too much, but there is just a number issues we would
13 like to touch upon.

14 I would like to begin with some questions
15 around the issue of disadvantages and advantages of
16 independent power, so I will direct my questions to
17 you, Mr. Vyrostk.

18 If you could look at Interrogatory 5.2.10

19 THE REGISTRAR: That will have the number
20 321.65.

21 ---EXHIBIT NO. 321.65: Interrogatory 5.2.10.

22 MR. MATTSON: Q. It is a response to an
23 interrogatory from Energy Probe. And just very
24 quickly, this response speaks about a peak, it just
25 speaks about peaking generically. And I was wondering

1 if you could tell me if that is seasonal or daily
2 peaking that you are referring to in that response?

3 It says "Ontario Hydro conceptually
4 studies indicated peaking developments were technically
5 possible at these sites."

6 If it is going to be of any assistance to
7 you, we could take an undertaking on that and you could
8 provide that to us as soon as possible.

9 MR. SNELSON: A. I believe that the
10 sites that are being considered, the four sites, are
11 Grand Rapids, Long Sault, and Umbata Falls, and I don't
12 think we can recall the fourth one.

13 MR. B. CAMPBELL: I believe the fourth is
14 Yellow Falls.

15 MR. SNELSON: Yellow Falls.

16 And Grand Rapids would have to be
17 developed in step with Ontario Hydro's Mattagami plants
18 to avoid the situation of Smoky Falls being
19 re-established where you a smaller development on the
20 river constrains the operation of other plant on the
21 river because it is on the same river as the Mattagami
22 plants that we are seeking to redevelop and that would
23 be peaked in the same mode as Ontario Hydro plants on
24 the river.

25 Long Sault, I believe, would have been

1 peaked and I think Panel 6 can probably speak better to
2 what sort of development Ontario Hydro would have
3 proposed for that site, but probably it would have had
4 some components of daily and seasonal variation.

5 MR. MATTSON: Q. And following from
6 that, you noted that:

7 It was therefore expected that
8 developers would consider less peaking or
9 run-of-river plants in order to proceed
10 with developments sooner.

11 My question is why would the economic
12 assumptions for the private sector be any different
13 than Ontario Hydro's?

14 MR. BROWN: A. Two things come to mind.
15 Developing a large hydraulic facility to take advantage
16 of peaking requires a substantial civil cost to
17 increase the headpond to be able to peak on a daily
18 basis.

19 Some NUG proponents are not in a position
20 to put that money forward or do not see value in
21 developing a site of that nature and rather run it on a
22 run-of-river basis where you don't have the large civil
23 works required to build a headpond for daily storage.

24 It also gets into the operation and
25 maintenance because if you can design a run-of-river

1 plant you don't need an operator. It can all be
2 automatic.

3 And the second concern is on the tax
4 consequences which do not apply to Ontario Hydro.
5 Under Class 34, capital cost appreciated deduction, you
6 only qualify for that if you are under 15 megawatts so
7 some proposals do not go above 15 megawatts to take
8 advantage of that for tax reasons.

9 Q. Mr. Brown, when you said the
10 independent power may not see the value, I take it that
11 from Ontario Hydro's perspective that the dam is more
12 valuable if it is a peaking dam; correct?

13 [10:12 a.m.]

14 MR. SNELSON: A. The situation with
15 respect to peaking will be fully discussed on Panel 6,
16 but very briefly a peaking development captures the
17 maximum energy and capacity from a site and enables the
18 energy to be generated at the time of its greatest
19 value. And so the greatest value of the site occurs if
20 it is peaked, provided it is under control of the
21 system control centre, so that it can be controlled to
22 produce its energy at the time when the system most
23 needs it.

24 Q. So this site then, it would increase
25 in value to the independent power producer if in fact

1 it was dispatchable to Ontario Hydro, if Ontario Hydro
2 had some control over the dispatchability of this site?

3 A. That is one way of increasing value,
4 yes.

5 Q. Thank you.

6 Now, Mr. Vyrostkó, in direct you
7 testified that the relatively small size of a typical
8 NUG meant that system integration was easier in that
9 there was less impact on local communities. Do you
10 recall that?

11 MR. VYROSTKO: A. I recall talking about
12 the impact on local communities being less with small
13 projects.

14 Q. All right. Have you defined what
15 less impact on local community means and, for example,
16 would this mean less environmental impact?

17 A. I think I was talking to a number of
18 different impacts, that they could be environmental
19 impacts, they could be social impacts, with respect to
20 the amount of activity that is involved with the local
21 community when the project is both under construction
22 and finally in operation.

23 Q. All right. So when you say with
24 respect just then to less environmental impact, would
25 that be generally the case, that there is less impact

1 on local communities environmentally then?

2 A. Depending on the type of project, you
3 can't necessarily generalize in all cases, but a number
4 of the smaller projects would have less environmental
5 impacts with the local community.

6 Q. All right. Now, Mr. Vyrostkco, also,
7 if you could turn to transcript 69, page 12456.

8 THE CHAIRMAN: I'm sorry, can you give me
9 the number of the page again?

10 MR. MATTSON: Volume 69, page 12456.

11 Q. I am looking at line 15, just for
12 clarification purposes, you answered:

13 "I can't think of any non-utility
14 generation project that would come in
15 with an efficiency higher than, which is
16 worse than, one of our existing
17 facilities."

18 Is it true then, Mr. Vyrostkco, from that
19 that all NUG proposals to date that Ontario Hydro has
20 received, call for more efficient generating plants
21 than Ontario Hydro's existing plants?

22 MR. VYROSTKO: A. I guess I can think of
23 one type of project that may not be equal to or better
24 than Hydro's existing facilities.

25 Q. What is that, Mr. Vyrostkco?

1 A. That would be possibly a garbage
2 burning plant.

3 Q. With respect just to thermal then,
4 that statement that I read to you would be correct,
5 just with respect to your thermal plants?

6 A. Municipal solid waste is thermal.

7 Q. Okay. So then with respect to just
8 the fossil, is that also thermal?

9 A. Currently the only fossil we have is
10 natural gas, so that all natural gas would be more
11 efficient than Hydro's plants.

12 MR. BROWN: A. I just want to add, in
13 some of the historic load displacement there are some
14 diesel generators that are used for peaking purposes
15 and those would be at the same efficiency as Ontario
16 Hydro's.

17 Q. And how many of those are there, Mr.
18 Brown?

19 A. I believe there's about 10 to 12
20 megawatts.

21 Q. Thank you.

22 Now, in the same volume, Volume 69, at
23 page 12467, Mr. Vyrostk, if you could look to line 16.

24 MS. PATTERSON: What is that page again?

25 MR. MATTSON: 12467.

1 MS. PATTERSON: Thank you.

2 MR. MATTSON: Q. Your answer is that --
3 I will read the question.

4 "So it has advantages over, say, a
5 coal plant perhaps, but it doesn't have
6 any advantage over -- it has a
7 disadvantage as compared to real
8 cogeneration; right?"

9 And your response:

10 "It doesn't have much of an
11 improvement compared to the
12 high-efficiency cogen, and when you come
13 to the gas-fired plant versus the
14 coal-fired plant, then they have
15 different impacts, and there are some
16 that go one way and some that go the
17 other."

18 My first question is, what impacts are we
19 referring to, what impacts were you referring to in
20 that response that some go one way and some go the
21 other?

22 MR. SNELSON: A. I believe that was my
23 answer, Mr. Mattson.

24 Q. Sorry, Mr. Snelson.

25 A. And the comparison was between the

1 gas-fired plant and coal-fired plant. And I believe in
2 a number of answers, the advantages of gas-fired plant
3 in terms of lower carbon dioxide emissions and lower
4 acid gas emissions has been identified, particularly
5 with respect to sulphur dioxide.

6 With respect to nitrogen oxide, then
7 whether there is a reduction or not depends on the
8 degree of nitrogen oxide controls on either
9 alternative.

10 The discussion was also about social
11 characteristics and other such characteristics, and a
12 gas-fired option is using a fuel that is relatively
13 scarce measured over many decades, whereas coal is a
14 fuel where the identified resources are measured in
15 centuries rather than decades, so it's a much more
16 plentiful resource. So there is much less chance of
17 depletion of the natural resource.

18 Q. Has Ontario Hydro done the analysis
19 on, that the gas -- or is this for another panel, that
20 the gas is a scarce resource?

21 A. The expert on fuels will be on Panel
22 8. Exhibit 14, which is the Energy Price Trends Report
23 does have information on the ratio of identified gas
24 resources in Canada and North America compared to the
25 annual usage rate. And while obviously more will be

1 found, then there is there is some preliminary
2 information in that exhibit.

3 Q. All right. But Ontario Hydro, your
4 position with respect to the impacts going one way and
5 going the other way, do you consider this to be a
6 saw-off or have you come to some conclusion as to which
7 one you see as being more advantageous?

8 A. I think that this is a discussion
9 which is better for the panel which is looking at
10 coal-fired generation and gas-fired generation which is
11 Panel 8.

12 Q. All right. Now, Mr. Vyrostk, the
13 evidence at the hearing has been that shorter lead
14 times, and that's of independent power or NUGs, the
15 shorter lead times of the typical NUG give a better fit
16 to the changing needs of the overall system; is that
17 correct?

18 MR. VYROSTKO: A. That's correct.

19 Q. And also that shorter lead times
20 better address the changing requirements of the system?

21 A. That's correct.

22 Q. Now, is it fair to say that given
23 these two statements, is it fair to conclude that
24 plants with shorter lead times are an inexpensive way
25 to ensure planning reliability of the overall system?

1 [10:23 a.m.]

2 MR. SNELSON: A. Other things being
3 equal, yes.

4 Q. And would it be cheaper than assuring
5 planning reliability through long-term planning?

6 A. Sorry, can you repeat the question.

7 Q. Would it be cheaper than assuring
8 planning reliability through long-term planning?

9 A. Only if other things are equal and
10 there are some things that may not be equal.

11 Q. All right. Other things being equal,
12 could we say it is less risky to assure planning
13 reliability through short-term planning as opposed to
14 long-term planning?

15 A. Not necessarily.

16 Q. Was it true, Mr. Snelson, not
17 necessarily, but is it true, Mr. Snelson, that you
18 would only buy, with respect to short-term plan that
19 is, you would only buy when the demand management is
20 there; and if the demand management wasn't there there
21 would be no need to buy that plant; correct?

22 A. That's correct.

23 Q. Whereas with respect to long-term
24 planning you are committed to that generation despite
25 whether or not the demand as forecast is correct?

1 A. That is correct.

2 Q. Is it fair to say that with so many
3 independent power project proponents hoping to take
4 advantage of the low natural gas prices, and I believe
5 that's in evidence so far, is it fair to say that NUG
6 fuel diversity has become a source of concern for
7 Ontario Hydro?

8 MR. VYROSTKO: A. I think at this time
9 the amount of non-utility generation that we have
10 coming from natural gas is a reasonable balance and
11 provides us with a reasonable mix of various fuel types
12 for generation.

13 I think down the road at some point in
14 time we really have to look at how much more do we go
15 with natural gas as the fuel and whether in fact we do
16 then get the most optimum balance of resources for
17 generation.

18 Q. When you say at this time you have,
19 what about with respect to at this time you have
20 certain proposals out there. Has that caused you some
21 concern with respect to fuel diversity if in fact those
22 proposals were accepted onto the system?

23 A. I don't believe that the current
24 proposals that we have under negotiations would be
25 giving us that problem.

1 Q. Mr. Vyrostkco, does it follow then
2 that with greater fuel diversity this would lead
3 generally to a greater system reliability?

4 A. Not necessarily.

5 Q. All right. Now in the year 2000, Mr.
6 Vyrostkco, according to your forecasts, and I believe
7 this is in evidence, that there will approximately be
8 13 per cent of Ontario's power will come from the NUG
9 industry; is that correct?

10 A. In that order, yes.

11 Q. And what proportion of that 13 per
12 cent will come from natural gas if you forecast it
13 correctly? Is it 70 per cent?

14 DR. CONNELL: Mr. Mattson, did you phrase
15 that as capacity or as energy?

16 MR. MATTSON: Energy, Dr. Connell.

17 MR. BROWN: Our response will be in
18 capacity unfortunately. (Laughter)

19 MR. VYROSTKO: It would be in the order
20 of 88 per cent.

21 THE CHAIRMAN: Of capacity?

22 MR. VYROSTKO: Of capacity, yes.

23 MR. MATTSON: Q. So that would be close
24 to 10, 11 per cent of the total system would be
25 gas-fired NUGs; correct?

1 MR. VYROSTKO: A. I'm sorry I missed
2 that.

3 Q. That would then be close to 10, 11
4 per cent of the system would be dependent on gas-fired
5 NUGs; correct?

6 MR. BROWN: A. Yes, that's correct.

7 MR. VYROSTKO: A. Yes, in that order.

8 Q. And has Ontario Hydro done any
9 studies to consider the credibility that all 10 per
10 cent of that total that it could be shut down due to
11 gas unavailability? Do you have any studies with
12 respect to that?

13 A. No, we haven't done any studies on
14 that.

15 Q. Now, the first exhibit this morning
16 was Exhibit 350. If you could turn to page 24. Now,
17 Mr. Vyrostko, this is the HR 19 Ontario Energy Board
18 interim report. Do you recognize that, Mr. Vyrostko?

19 A. I do.

20 Q. And you were a panel member on the
21 NUG panel at that time, were you not?

22 A. I was.

23 Q. All right. If you look at page 24
24 under gas-fired cogeneration, the first sentence reads:

25 The Board does not agree with the

1 views expressed by Hydro about the
2 unreliability and price risk associated
3 with the gas supply for cogeneration
4 projects.

5 Do you recall that?

6 A. Currently I don't recall the context
7 of that, but I do recall the statement being made.

8 Q. And just two paragraphs down at
9 4.5.11, the Board is strongly of the view that
10 long-term gas supply contracts can be negotiated for
11 cogeneration facilities with predictable future prices
12 for fuel.

13 Now, Mr. Vyrostko, since the HR 19
14 report, has Ontario Hydro done any more studies or
15 analyses with respect to the Board's views that the gas
16 prices have a predictable future, the prices for fuel?

17 A. First of all, I believe that the
18 projects we are negotiating over the last I would say
19 eight months or so have in fact been able to provide us
20 with price predictability. And even prior to that,
21 there was an opportunity to negotiate gas contracts
22 with some price predictability but that price
23 predictability was in price reopeners that had some
24 risk associated with that.

25 Q. Since this report, gas prices have

1 declined; is that the case?

2 A. That's correct. Short term that is,
3 short-term prices.

4 Q. And with respect to Ontario Hydro's
5 position at the Demand/Supply Plan Hearing and from the
6 NUG position, has your position changed with respect to
7 reliability for planning purposes due to the risks
8 associated with gas prices?

9 MR. BROWN: A. Before we have that
10 answer, I would like to put in this context. There is
11 good price predictability in gas contracts which are
12 typically 15 years in length. Our concern wasn't the
13 15 years, it was after the 15 years where the contracts
14 are no longer valid and the producers have to go after
15 more gas. So the 15 to 25 years of the overall plan
16 was our concern, not the initial phases where gas
17 contracts are required before they get a purchase
18 contract with Ontario Hydro. So you have to look at
19 both time frames when you are answering the question.

20 THE CHAIRMAN: Before we get into this.
21 I think it appears from this exhibit that you took a
22 position last year at the 1991 hearings about the
23 unreliability and price risks associated with gas
24 supply for cogeneration projects. Now I think the
25 question is: Do you have the same view now or has your

1 view changed about that?

2 MR. VYROSTKO: I think our view has
3 changed.

4 THE CHAIRMAN: In what way has it
5 changed?

6 MR. VYROSTKO: Because of the change in
7 gas prices, the gas industry is now prepared to get
8 into long-term contracts with fixed price or specified
9 price escalators.

10 MR. MATTSON: Q. Mr. Brown, with respect
11 to your comments on what would happen after the 15
12 years, if you turn to the next page, which doesn't have
13 a number in the top right -- it does, 24B, we would
14 like to have that added, at the top of the page, the
15 Board notes:

16 If the gas price in future increases
17 beyond that forecast and results in the
18 project proponent making lower returns on
19 equity, this is part of the risk the
20 proponent assumes when investing in the
21 cogeneration project. Should the project
22 be sold as a result, Hydro's obligation
23 of purchase power would cease. It is
24 also very likely that the asset value at
25 sale would reflect the reduced

1 profitability and there would be a good
2 chance that Hydro would be able to renew
3 its power purchase contract with the new
4 owners.

5 So does the Board in some ways address
6 that concern of your.

7 MR. BROWN: A. I'm sorry I couldn't find
8 the page or reference.

9 Q. It is the next page after the --

10 A. Mine is 25.

11 Q. I apologize.

12 ---Off the record discussion.

13 MR. BROWN: Sorry. And the part you
14 quoted.

15 MR. MATTSON: Q. Yes, I quoted basically
16 the entire first paragraph except for the first
17 sentence, the first partial sentence.

18 MR. BROWN: A. I believe this is still
19 directed at the 15-year life of the gas contract. And
20 my concern was after the 15 years.

21 Q. But is it also true that if in fact
22 gas prices had increased, the asset value at sale would
23 reflect the reduced profitability and there would be a
24 good chance that Hydro will be able to renew its power
25 purchase contract power with the new owners?

1 A. That is a possibility if somebody
2 takes a loss another person takes advantage of that.

3 Q. And that's a benefit of independent
4 power and having the independent power producer hold
5 that risk and not Ontario Hydro; correct?

6 A. That's correct.

7 Q. Now does Ontario Hydro have any
8 information on the percentage of natural gas used in
9 the total generation in individual American states or
10 in the United Kingdom?

11 THE CHAIRMAN: Used for what purpose?

12 MR. MATTSON: Used for the generation of
13 power.

14 MR. SNELSON: There are standard
15 reference statistics on that sort of thing. They are
16 not particularly produced by Ontario Hydro, but they
17 are available through American agencies for instance.

18 MR. MATTSON: Q. Have you made them
19 available through this process of the Demand/Supply
20 Plan Hearing?

21 MR. SNELSON: A. Not to my knowledge.

22 Q. Have you looked at those percentages
23 before coming to the conclusion that there may be a
24 credible risk with respect to planning reliability due
25 to natural gas percentages of your entire system?

1 A. I know that this is addressed by our
2 fuels division when considering natural gas price
3 forecasts and the forecasts of availability and
4 volatility of natural gas prices and the fuels witness
5 will be on Panel 8.

6 Q. All right. Now, if the risk of gas
7 price increases does affect the reliability of
8 independent power, is it also true then that this
9 problem may be ameliorated to some extent by the short
10 lead times of independent power in building generating
11 capacity?

12 A. From a system point of view, I think
13 the volatility in price in the short lead time can
14 cause problems rather than curing problems.

15 Q. Could you expand?

16 A. Yes. If you have decided not to
17 build long lead time options which use more plentiful
18 fuels or more predictably priced fuels and decided to
19 rely upon short lead time options that use natural gas,
20 then in the event that by the time you want to build
21 the natural gas-fired option, the price of natural gas
22 has gone very high, then you have lost the opportunity
23 to build the lower cost, longer lead time options.

24 Q. But if the price of natural gas is
25 low at the time, you take advantage of that

1 opportunity, I believe Mr. Rogers called it a "window
2 of opportunity" earlier in the evidence, and then
3 during the course of that contract, price of natural
4 gas increases, the fact that you have short term lead
5 into the plants, does that ameliorate the concerns that
6 by the end of the contract, new market advantages or
7 new market fuels or the price of fuel may have gone
8 down in the market and because of the short lead times
9 they will be able to take advantage of that?

10 [10:40 a.m.]

11 A. Well, a short lead time does allow
12 one to take advantage of a low price that exists and is
13 not predicted to exist for a long time in the future.
14 So, it doesn't enable you to take that advantage, but
15 it has these other risks that I have discussed.

16 Q. And, Mr. Snelson, is this ability to
17 take advantage of this, for example, drop in natural
18 gas, was this exhibited in Ontario Hydro's recent -- in
19 the recent independent power surge in proposals to you
20 due to the low natural gas prices?

21 MR. VYROSTKO: A. I think the increase
22 in activity that we got was as a result of the low
23 current prices of natural gas.

24 Q. And this opportunity exists today;
25 correct? It may not exist in a few years?

1 A. That's correct.

2 Q. Now, Mr. Vyrostkco, still continuing
3 on just touching on the benefits and disadvantages that
4 you have already gone through in evidence. When you
5 were speaking with the counsel for the MEA about NUG
6 reliability versus Ontario Hydro project reliability,
7 you said there are utility projects that are more
8 reliable and there are NUG projects that are more
9 reliable, so it depends on the particular circumstance
10 and the station, do you recall this?

11 A. I believe so, yes.

12 Q. And do you know which ones you were
13 speaking to offhand where the utility project is more
14 reliable than the NUG project?

15 MR. BROWN: A. I think there is a wide
16 range of reliability in Ontario Hydro's facilities and
17 a wide range of reliability in NUG facilities. I think
18 the comment was just a generic one, that if you take
19 opposite ends of the spectrum they will not line up.

20 Q. If we look at one in particular, I
21 believe that you have an 80 per cent reliability
22 estimate for forecasting purposes on cogeneration;
23 correct?

24 A. That's correct.

25 Q. And your 1990 cogeneration NUGs

1 analysis showed that they only had a 43 per cent
2 reliability; correct?

3 A. I think that was provided in an
4 interrogatory.

5 THE CHAIRMAN: I am sorry, I didn't hear
6 the last part.

7 MR. BROWN: It was provided in a previous
8 interrogatory.

9 MR. MATTSON: Q. Could this apparent low
10 reliability of cogen NUGs be due to the recession?

11 MR. BROWN: A. That would be a factor.

12 Q. And it is not coincidence then that
13 Ontario Hydro's demand was down at the same time as
14 cogenerators' output was down; correct?

15 A. I think there is some coincidence
16 there.

17 Q. Can you expand on that?

18 A. Just the major factor for the
19 unreliability was not the recession. That is just one
20 factor. A bigger factor was that these were mostly
21 brand new facilities and they will have teething
22 problems.

23 Q. But going with that one factor with
24 respect to the recession, is it also true that it is
25 with respect that Ontario Hydro's demand is down, you

1 are going to find that cogenerators' output may also be
2 down?

3 A. Where those sectors are affected and
4 they are reducing their steam demand, that's quite
5 possible.

6 Q. All right. Now, is this a good thing
7 or a bad thing would you say, with respect to
8 independent power cogeneration?

9 A. I think it has pluses and minuses.
10 If you are planning on having facilities available and
11 they are now becoming variable rather than having
12 contract amounts that you have already predicted to,
13 then that would be a minus because you are expecting
14 those facilities to be producing a certain amount of
15 power and they are not now.

16 But I think there would be advantages if
17 there is a decrease in the system requirements and that
18 these NUGs are decreasing output, that would assist the
19 situation. I think that will only be the case though
20 during capacity surpluses rather than changes in load.

21 Q. And certainly, Mr. Brown, with
22 respect to how Ontario Hydro pinpoints avoided cost
23 figures and values these contracts over the long term,
24 this factor that cogenerators will have low reliability
25 during a recession, this factor may in fact be a good

1 thing and may be better because of the way you do
2 contracts with cogenerators; is that not correct?

3 A. It would have to depend on the impact
4 of what we are losing. Obviously we are going to be
5 paying him less if he's less reliable than he expected
6 because of the recession. But it may require us to do
7 other actions that we didn't plan on doing that could
8 be more costly.

9 Q. But certainly if demand is down, this
10 would ensure that the cheaper power like hydraulic
11 power which would have a lower marginal cost when
12 demand is down, it would be used by Ontario Hydro as
13 opposed to allowing the water to spill over the dams
14 and be stuck into long-term fixed contracts with
15 cogenerators, correct, if in fact they were still
16 producing at 80 per cent reliability?

17 A. That's correct under the surplus
18 situation you have gave.

19 Q. And we expect a surplus situation in
20 the near future?

21 A. I believe Mr. Snelson said the late
22 90s.

23 Q. All right. Does Ontario Hydro have
24 any studies on the capital intensiveness of independent
25 cogenerators?

1 A. There are no studies.

2 Q. Is it fair to say that cogenerator
3 capital costs are lower than most of Ontario Hydro's
4 capital costs?

5 A. I think if we are looking at capital
6 costs you have to look at the technology, and if
7 Ontario Hydro was to build a combined-cycle plant, then
8 the costs would be fairly similar.

9 Q. Has Ontario Hydro ever built a
10 combined-cycle plant?

11 A. They have built CTUs without the
12 combined-cycle, which are not capital intensive.

13 Q. And the CTUs, you have plans to build
14 those in the future as well?

15 A. They are included in the plan, yes.

16 Q. All right. And, Mr. Vyrostkco, in
17 response to IPPSO's cross-examination you indicated
18 that natural gas prices had dropped and you said, and
19 if you turn to Volume 68, page 12161, the top of the
20 page: "I can't speak to all the reasons behind that,
21 but I think competition clearly is bringing the price
22 down."

23 Do you recall that.

24 MR. VYROSTKO: A. Yes, I do.

25 Q. All right. Now, I believe there are

1 only two companies which are bringing western gas into
2 Ontario; is that correct?

3 A. That's correct.

4 Q. A major one is the TransCanada
5 PipeLine; is that correct?

6 A. That's correct.

7 Q. So when you were speaking about
8 competition taking place, you are speaking strictly of
9 the gas wells in the west; is that correct?

10 A. I was talking about the producers,
11 that's correct.

12 Q. So those would be the gas wells in
13 the west?

14 A. That's correct.

15 Q. All right. And it is the competition
16 between these many suppliers of gas to the customers
17 that you are referring to?

18 A. It's competition for gas supply.

19 Q. Finally, in the area of benefits and
20 disadvantages, I have one area of questions. I
21 understand, Mr. Vyrostko, that theoretically future
22 independent power proposals could include nuclear
23 power.

24 A. Theoretically they could.

25 Q. And as an example, in AMPCO's

1 cross-examination you testified that you would accept a
2 hypothetical proposal for a 50 megawatt nuclear NUG
3 should it come within avoided cost and meet all
4 environmental regulations; correct?

5 A. I believe I said that.

6 Q. All right. Is there any ceiling on
7 the size of a nuclear NUG that you would accept?

8 A. I think if it was under current
9 circumstances a nuclear NUG would be a major supply NUG
10 and we would not be accepted any.

11 Q. On the interim policy guidelines?

12 A. Based on where we are at today with
13 regard to business.

14 Q. But you have also testified that that
15 may not carry on throughout the course of this 25-year
16 Demand/Supply Plan?

17 A. That's right, we don't know what can
18 happen in the future.

19 Q. So there is no ceiling on the size of
20 a nuclear NUG that you would accept, given that
21 proviso?

22 A. I think from my perspective, if the
23 nuclear NUG can in fact meet all environmental
24 regulations and get approval to build, then I don't
25 have any preconceived ideas what that limit should be.

1 Q. All right. And there is no ceiling
2 on the size of major supply NUGs generally either,
3 whether they be nuclear or any other, given the proviso
4 of the interim guidelines?

5 A. I think the other important element
6 when we are looking at sizes of projects is this
7 integration into the system. And in fact at any given
8 time there is a requirement for, as an example, 300
9 megawatts, then it would not be practical to be looking
10 at a NUG with a 1,000 megawatt proposal, for instance,
11 because it's really not compatible with the
12 integration needs of the system.

13 I think you really have to look at two
14 things, what the system requires and then what the
15 proponent is prepared to offer.

16 Q. All right, and that's in evidence.

17 Mr. Vyrostkco, this panel has testified
18 that in some circumstances the private power is good at
19 keeping costs low, they have low overheads; is that
20 correct?

21 A. That's one of the advantages of
22 non-utility generators.

23 Q. And you have testified that there is,
24 in the independent power there is an efficient use of
25 energy and resources; do you recall that?

1 A. In specific applications, yes.

2 Q. All right. And would you agree that
3 these benefits are primarily because of competition
4 between independent power and trying to get the price
5 below avoided cost?

6 A. I would not necessarily say that it
7 is due to competition. I would think it's due to the
8 way some of the proponents are structured and the way
9 they in fact design and develop their projects.

10 Q. You say not necessarily due to
11 competition. Is there some component which may be due
12 to competition?

13 A. We haven't had a competition here
14 yet, so I can't really speak to which elements would be
15 competing necessarily.

16 I think that the marketplace does bring
17 forward economies under competitive rules. We haven't
18 yet asked for that competition, and so therefore we
19 haven't seen those advantages coming to Ontario.

20 Q. All right. But you are certainly
21 thinking about having competitive bidding between
22 independent power in the future?

23 A. At some point in time we would be
24 looking at whether that is a practical thing to do.

25 Q. All right. And we saw that where the

1 gas wells in the west, where they are competing for
2 supply with only one transmitter -- two, but basically
3 TransCanada PipeLine, it brought the price down as
4 well; correct?

5 A. If you have more supply than demand
6 and there are a number of people competing to provide
7 that demand, it would bring the price down.

8 Q. All right. And there is no reason
9 why this would not be true of a NUG developed nuclear
10 station as for any other NUG developed station, would
11 there?

12 A. Again, it depends on what would be
13 the procedures, for instance, that type of NUG would
14 have to follow. There may be some very strong
15 restrictive elements in having one of those projects
16 come forward and that may in fact not make it
17 competitive at all.

18 Q. Have you to date received any
19 proposals for nuclear NUG projects?

20 A. No, we have not.

21 Q. Has your division had any discussion
22 with any developer, AECL, MEA or any independent
23 private company with respect to a nuclear NUG?

24 A. No, we have not.

25 Q. Finally on that issue, is there any

1 nuclear potential component in your NUG plan? Do you
2 anticipate ever having any nuclear NUG component?

3 MR. BROWN: A. I can only speak at the
4 present, there is no nuclear component in the 1989,
5 1990 and 1991 NUG plans.

6 Q. And you have no way of knowing -- you
7 haven't forecast or had any discussions whether or not
8 that will occur in the future?

9 A. There is no evidence to support that
10 in the Plan at the present time.

11 Q. But my question is with respect to
12 the discussions, for example. Have there been any
13 discussions that this may be a possibility in the
14 future?

15 A. Not in the Plan, no.

16 Q. Not in the 25-year Plan?

17 A. That's right.

18 Q. Now, Ontario Hydro's distinction
19 between Ontario Hydro's existing and planned facilities
20 versus major supply NUGs, this distinction was not made
21 on the basis of environmental benefits, was it?

22 [10:55 a.m.]

23 THE CHAIRMAN: Sorry, I didn't quite
24 follow the question. The distinction between what and
25 what?

1 MR. MATTSON: The distinction between
2 Ontario Hydro's existing and planned facilities versus
3 major supply NUGs proposals. This distinction was not
4 made on the basis of environmental benefits?

5 THE CHAIRMAN: The situation at the
6 moment is there is one major supply NUG committed or
7 about to be committed, I can't remember which, of 350
8 megawatts and the current policy is there will be no
9 further proposals from major supply NUGs accepted. So
10 I am not quite sure I understand the question.

11 MR. MATTSON: I apologize, Mr. Chairman,
12 I missed it. Let me rephrase the question.

13 Q. Ontario Hydro's distinction between
14 major supply NUGs and NUGs was not made on the basis of
15 environmental benefits; correct?

16 MR. VYROSTKO: A. I think it was made on
17 a number of factors, one being the impacts it has on
18 environmental issues.

19 Q. And then taking that distinction you
20 have made between major supply NUGs and NUGs, the
21 environmental benefits were not compared then between
22 major supply NUGs in Ontario Hydro's existing system?
23 That had nothing to do with the distinction between
24 major supply NUGs and NUGs; correct?

25 A. I think Mr. Snelson's evidence was

1 saying that a major supply NUG has generally the same
2 characteristics as an option that Ontario Hydro would
3 have, a major supply option; and therefore because
4 those characteristics are similar, then they should be
5 considered in the same way with regard to planning and
6 integrating into the system.

7 Q. All right, Mr. Vyrostkco, is it fair
8 to say, though, that there are existing plants that are
9 less efficient than proposed major supply NUGs?

10 THE CHAIRMAN: You mean existing Hydro
11 plants?

12 MR. MATTSON: Yes, Mr. Chairman.

13 MR. VYROSTKO: I believe that under
14 certain circumstances, some of our existing plants
15 would operate less efficiently than a major supply NUG.

16 MR. MATTSON: Q. In fact earlier in the
17 testimony you haven't seen any proposals from major
18 supply NUGs that are in fact less efficient than any of
19 Ontario Hydro's plants except for the one exception;
20 correct?

21 MR. B. CAMPBELL: I am assuming you are
22 referring, Mr. Mattson, to plants at which Ontario
23 Hydro uses gas as a fuel or are you referring to all
24 plants? Because I think it is well understood that
25 there are efficiency differences between the different

1 fuels.

2 MR. MATTSON: I believe I am referring to
3 all plants, Mr. Campbell, as that was in evidence, the
4 fossil fuels, the fossil-fuel plants.

5 MR. B. CAMPBELL: So you are comparing a
6 coal plant with a gas--

7 MR. MATTSON: Proposal.

8 MR. B. CAMPBELL: --proposal.

9 Just so we are clear.

10 MR. VYROSTKO: Could you repeat the
11 question?

12 MR. MATTSON: Sure.

13 Q. You have not to date received any
14 proposed major supply proposals, proposed major supply
15 NUGs, that are in fact less efficient than any of
16 Ontario Hydro's existing fossil fuel plants?

17 MR. VYROSTKO: A. No. That's correct,
18 we have not. And that's partly driven by the type of
19 technology that is being used, combined cycle, as
20 opposed to simple cycle technology.

21 Q. All right. And the distinction made
22 between major supply NUG and a NUG was not made upon
23 economic grounds as all these proposals to be accepted
24 would have to come below avoided cost; correct?

25 A. That's correct.

1 Q. Now putting aside the guidelines just
2 for a moment and I will get back to them. But when and
3 if a new independent power proposal is accepted as a
4 major supply NUG, does Ontario Hydro foresee that they
5 will become a separate major supply NUG total for the
6 system as opposed to adding it to the 3,100 megawatt
7 forecast for the year 2000 now forecast?

8 A. I believe Mr. Brown has already
9 explained that if we were to in fact commit a major
10 supply NUG, that that major supply NUG would be
11 included into the forecast, but that he doesn't
12 forecast major supply NUGs on a normal basis.

13 Q. Yes, I saw that in evidence
14 yesterday. I just wanted to make sure there was no
15 plans with respect to having a separate forecast or a
16 separate total kept at Ontario Hydro between NUGs and
17 major supply NUGs.

18 MR. BROWN: A. Our accounting would
19 account for all of them once they are committed.

20 Q. Is it still possible, you have been
21 given the new policy, that independent power could
22 reach 100 per cent of the new generation on the system
23 if it comes below avoided cost and is more efficient
24 than Ontario Hydro's supply?

25 MR. SNELSON: A. I don't think you can

1 theoretically rule out that possibility.

2 Q. Thank you. If you could turn to
3 transcript 74, page 13316. And if you look at line 18,
4 the Chairman's remarks, and then your response, Mr.
5 Snelson - and I will read it - I am just wondering if
6 this is still correct now that the new policy is in
7 order.

8 The comments are:

9 "But historically in deciding who
10 would do it, there was no question that
11 Hydro would do it.

12 "Now, there is a new policy or
13 attitude, whatever you want to call it,
14 that you would consider whether Hydro
15 does it or whether you arrange for
16 somebody else to do it."

17 And Mr. Snelson, your response is.

18 "That is correct."

19 That hasn't changed, has it, Mr. Snelson
20 in light of the new NUG policy guidelines?

21 A. No. I believe the new policy
22 guidelines are addressing a situation where in the
23 short term at least we don't see a need for new
24 generation by Ontario Hydro or non-utility generation,
25 in addition to what is planned from the preferred NUGs

1 in the demand management.

2 Q. Now this question, I have seen from
3 the transcript there seems to be some uncertainty in
4 this area, but in terms of deciding whether a major
5 supply NUG proposal should be accepted by Ontario Hydro
6 or if Ontario Hydro should build the plant instead, am
7 I to understand that you are not sure who will make
8 this determination at this time and what criteria will
9 be used?

10 A. Yes, I think through this process we
11 are trying to establish the general characteristics of
12 the sort of generation that should be added to the
13 system. And for certain technologies that could be
14 implemented by Ontario Hydro or the non-utility
15 generators, then having decided that's a desirable
16 technology to add to the system that would be something
17 to be addressed at the time.

18 Q. But you are not sure who will address
19 it at that time?

20 A. I don't think the process has been
21 settled.

22 Q. All right. Now I believe the
23 evidence is that Ontario Hydro considers major supply
24 NUGs to be in competition for its own supply; correct?

25 A. The major supply NUGs are proposing

1 technologies which are technologies that Ontario Hydro
2 could also implement.

3 Q. Would these independent power
4 proposals then not be alternatives to Hydro facilities
5 at some point?

6 A. Yes.

7 Q. Is Ontario Hydro considering leaving
8 that determination up to an environmental assessment
9 board at a site specific hearing to determine which is
10 the better route economically and environmentally?

11 A. As I have said, the process isn't
12 settled.

13 Q. All right.

14 Now, I am not sure who would answer this
15 question. If a major supply NUG and utility generator
16 are able to offer the same amount of electricity at the
17 same price, which supplier should be chosen, looking at
18 it first from the ratepayers' point of view or is there
19 any difference from the ratepayers' point of view?

20 MR. VYROSTKO: A. I think in comparing
21 two different options there are many factors that have
22 to be looked at. Price obviously is one. I think the
23 technology now, and I am not sure if you are assuming
24 the same technology --

25 Q. Yes, I am. All things being equal.

1 A. All things being equal?

2 Q. That's right. And they both come in
3 at the same price, same technology. The question is
4 who would the ratepayers -- do they care or who should
5 be chosen to provide that power?

6 A. I would think that if everything was
7 equal, the ratepayer would be neutral with respect to
8 who in fact built that project.

9 Q. Except for maybe the off-loading of
10 risk; correct?

11 A. Again, all things being equal.

12 Q. All right. From a public interest
13 point of view, from the interest of the public, the
14 Ontario public generally, which would be the better
15 option?

16 A. Again, I would think that if all
17 things were considered equally, the ratepayer would be,
18 the public.

19 Q. Not the ratepayer, the public
20 generally?

21 A. Generally would again be neutral in
22 this because all of the various benefits would be for
23 either project.

24 Q. But is it not true that the
25 independent power producer would have to make a profit?

1 A. Yes, he would.

2 Q. And he would have to pay taxes on
3 that profit?

4 A. Yes, he would.

5 Q. And, in fact, the fact that he can
6 produce the same project at the same time price, all
7 other things being equal, would it not also be an
8 indication that there may be a more efficient use of
9 resources there by the independent power producer?

10 A. I think now you are getting into
11 things that are not necessarily equal because you are
12 trying to compare the option with the private sector
13 and some of the values that they bring versus the
14 public sector.

15 Again, there is values that the private
16 sector has with respect to, for instance, paying taxes,
17 and benefits like that.

18 Then on the other side, the public
19 utility would also have benefits with respect to its
20 obligation to serve customers over the long term and
21 its proven reliability, so you started off by saying
22 all things considered equal and I was going by that
23 assumption.

24 Q. Fair enough. With respect to
25 efficient use of resources, if in fact the utility, an

1 independent power producer came in with the same price
2 of energy, the same amount of energy at the same price,
3 the same amount of time, is it a fair assumption to
4 assume that the independent power producer is making
5 more efficient use of resources?

6 A. I guess I can't fully answer that.

7 Q. All right, I will leave that.

8 And the third is from Ontario Hydro's
9 interest. Or is there no difference there? Is Ontario
10 Hydro's interest indistinguishable from the ratepayers
11 and the general public?

12 A. I think that we have said that if the
13 non-utility generation project can come in at our
14 avoided costs, or below, and meet all the regulations
15 of the province, that we would purchase it if it was
16 required and if we could integrate it into the system,
17 so I think we have said that is a preference for us.

18 Q. Just with respect to that issue. If
19 you could look at Volume 67, page 11996.

20 Mr. Vyrostkó, if you could look at line
21 18 to line 22, you state in-chief that:

22 "As well, we have identified and
23 addressed the needs of the industry while
24 ensuring a benefit for ratepayers. In
25 fact, we have developed a balanced

1 approach between Hydro's needs and the
2 ratepayers' needs and the industry
3 needs."

4 And I was just wondering if you could
5 expand on what the difference between those needs are.

6 I think I can understand the industry,
7 just with respect to Hydro's needs and the ratepayers'
8 needs, what the difference is between those two, why
9 they have been distinguished here.

10 A. One of Hydro's needs is to have
11 access to projects that are economic, that in fact have
12 short lead times to allow them to be integrated into
13 the system, that would be dispersed around the
14 province, and so therefore they could be brought
15 forward to balance local load as well as maximize
16 transmission capability, so I would see that as Hydro's
17 needs.

18 And then the ratepayers' needs would be
19 reliable low cost electricity that uses as much of the
20 local resources and maximizes the uses of resources.

21 Q. All right. And what happens when
22 those needs conflict? How are they resolved?

23 THE CHAIRMAN: I think you would have to
24 give a specific example of a conflict. It would be
25 very hard to answer the question in the abstract.

1 MR. MATTSON: Mr. Chairman, my only
2 problem in this area is that I suppose I didn't
3 recognize the needs being balanced. But I suppose if
4 they are distinguished there may be a conflict and
5 maybe I can ask if he could think of an example of a
6 conflict.

7 THE CHAIRMAN: All right. You can ask
8 that.

9 MR. MATTSON: Q. Mr. Vyrostk, could you
10 think of an example of a conflict?

11 MR. VYROSTKO: A. Offhand, I cannot
12 think of a conflict.

13 Q. If in fact that conflict ever arose,
14 do you have any way of resolving that conflict, at the
15 NUG division?

16 A. I would think it would depend on what
17 the conflict is and the extent of the conflict. I just
18 can't think of one right now.

19 Q. All right. Mr. Vyrostk, I am not
20 sure if you need to turn to the transcript on this.
21 But if we look at your evidence with respect to
22 response to Mr. Shepherd, IPPSO's counsel, on the
23 Galleta power station, you indicated that you would not
24 sell off small Hydro for a number of reasons but
25 ultimately you said unless you deemed it appropriate.

1 And that word was used at transcript 68, page 12220.
2 I apologize. It is two pages later, 12222, and the
3 discussion began at 12220.

4 And at line 12 on 12222, you indicate:

5 "We are looking at costs of the site
6 and what it would take to rehabilitate
7 it. And for those sites that we feel are
8 appropriate to be turned over to the
9 private sector, we will be doing that."

10 And I was just wondering if you could
11 expand on how you define appropriate and what factors
12 you use in coming to a determination of that?

13 A. I think first of all, that the
14 application of some of those criteria would better be
15 answered by Panel 6, the Hydraulic Panel. But I think
16 in general terms it's really looking at the use of the
17 facility and its economics to the Hydro system and
18 whether in fact we still want to retain the project or
19 the site or we want to turn it over to the private
20 sector.

21 Q. All right. Now, Mr. Vyrostkco, you
22 testified that Ontario Hydro is not cost-effective at
23 building small hydro, correct, as opposed to
24 independent power?

25 A. I think I said that Hydro is not

1 structured to build small projects in general terms.

2 Q. And why would Ontario Hydro be
3 cost-effective at operating small hydro as opposed to
4 building it, if they are structured in such a way that
5 they are not cost-effective at building small hydro?

6 A. I would think many of these small
7 hydro projects that would be referenced with respect to
8 this policy are projects we have had around for many
9 years and so the capability to operate those has been
10 established for many years. A lot of those are
11 operated by remote control and so therefore there isn't
12 any specific people there operating them and so there
13 are some economies with respect to operating those
14 sites.

15 Q. But if it could be operated more cost
16 effectively by an independent power producer, would you
17 consider that appropriate to sell it off?

18 [11:15 a.m.]

19 A. Again, I can't answer all of the
20 elements, but I would think that if that site is still
21 of economic value to Ontario Hydro, then why would we
22 want to necessarily turn it over?

23 Q. Well, if it was of more economic
24 value to the public generally, would Ontario Hydro
25 consider selling it off?

1 A. Again, I can't answer all of the
2 elements that are there.

3 I would think as long as that project is
4 bringing economic value to the province and we are
5 operating that and it has a long-term capability, we
6 would continue to operate that.

7 Q. I am finished with this area and we
8 can take a break. My only question is, if it had more
9 economic value to the ratepayer and to the province, if
10 it was in the NUG or in the private power, would
11 Ontario Hydro deem that to be an appropriate situation
12 to sell that plant off?

13 MR. B. CAMPBELL: Mr. Chairman, hasn't
14 the witness already said that he doesn't think he could
15 answer that in any kind of hypothetical, he would have
16 to deal with the circumstances at that time.

17 In my submission, it's not fair to pursue
18 this question when the witness has already indicated
19 that he just has no basis on which to deal with that
20 hypothetical.

21 THE CHAIRMAN: Well, I suppose they could
22 ask whether or not they are looking at this and
23 assessing this or have any positive policy with respect
24 to this.

25 MR. B. CAMPBELL: I believe those matters

1 have already been covered, Mr. Chairman, they were
2 discussed when this matter was reviewed previously.

3 MR. MATTSON: That's correct, Mr.
4 Chairman. They have indicated that they are looking at
5 it and they will sell them off when they deem it
6 appropriate.

7 I am just trying to determine if it would
8 be appropriate if in fact it was more economic in the
9 private sector than it was as being run by Ontario
10 Hydro, and if that would be an appropriate
11 circumstance.

12 THE CHAIRMAN: I think that is too broad
13 a question for them to have to answer.

14 MR. MATTSON: Q. All right. Is it true,
15 Mr. Vyrostko, that Ontario Hydro is not structured in
16 such a way as to be cost-effective at building small
17 hydro?

18 MR. VYROSTKO: A. Generally, Ontario
19 Hydro is not building small projects now and in many
20 cases it is because of the organizational capability
21 that we have in our cost-effectiveness in building
22 those projects.

23 Q. All right. And the only instance
24 where you did sell off a small hydro project was the
25 Galetta power station; correct?

1 A. I believe that's the only one.

2 Q. Is there any reason that you can
3 think of, Mr. Vyrostk, why Ontario Hydro would be
4 better at operating small hydro than they are at
5 building small hydro?

6 MR. BROWN: A. I think he has already
7 answered that had question. The more plants you can
8 run with the same amount of staff, the better operation
9 and maintenance you can have on those plants.

10 A lot of NUG developers are one owner,
11 one NUG facility, that is more expensive to run and
12 operate.

13 My guess would be Ontario Hydro runs
14 hydraulic facilities cheaper than NUGs could.

15 Q. All right then, Mr. Brown, then why
16 is Ontario Hydro not then pursuing these renewable
17 resources in terms of building them? Why you are
18 leaving it to the independent power to do it?

19 A. I think your question was in terms of
20 operation and maintenance and that's how I answered it.

21 These have been the built many years ago
22 and I am staying that we are structured to run those
23 cheaper in terms of operation and maintenance. We are
24 not saying we can build new ones as cheap, but we may
25 be able to run them cheaper.

1 MR. MATTSON: Thank you, Mr. Brown.

2 Maybe we could take a break, Mr.

3 Chairman. I expect to be maybe another hour.

4 THE CHAIRMAN: Just before we take a

5 break, I have question for Mr. Snelson.

6 Just to make sure I understand, I think
7 you said to Mr. Mattson something to the effect that at
8 present we don't see a need for new generation other
9 than what is planned. I think that's what you said.

10 And I wonder how that ties in with the general NUG
11 policy of maximizing economic potential for NUGs
12 subject to system constraints. Are those two concepts
13 reconcilable, I guess is my question.

14 MR. SNELSON: I believe that I qualified
15 my answer, and if I didn't may be I should have done.

16 Given forecast quantities of preferred
17 NUGs, demand management, and the existing system that's
18 underway, we don't foresee a need for additional
19 generation in the 1990s above and beyond that, and that
20 was the intent of my remark.

21 THE CHAIRMAN: But then if you reach the
22 target then, would it then be your policy to not
23 consider further proposals, even for preferred NUGs?

24 MR. SNELSON: We try to take preferred
25 options when they become available to us because

1 sometimes the timing of them is not subject to control.
2 An opportunity may be lost if one isn't taken when it's
3 available.

4 So, I think we try to be more flexible
5 with respect to some of the preferred options.

6 THE CHAIRMAN: We will take a break now
7 for 15 minutes.

8 THE REGISTRAR: This hearing will recess
9 for 15 minutes.

10 ---Recess at 11:23 a.m.

11 ---On resuming 11:42 a.m.

12 THE REGISTRAR: Please come to order.
13 This hearing is again in session. Please be seated.

14 MS. KARISH: Mr. Chairman, Mr. Campbell
15 will be along in a few moments. He has asked that you
16 go ahead without him.

17 MR. MATTSON: Thank you, Mr. Chairman.

18 Q. Panel, I would ask you to turn to
19 transcript 74, page 13332. Mr. Brown, this is a
20 response you made to counsel for the MEA, Mr. Watson,
21 and I am looking at lines 21. Your answer there:

22 "They are not as specific as purchase
23 or load displacement, but a load
24 displacement generator could take
25 advantage of any one of those six."

1 And you are speaking about the financial
2 assistance programs.

3 The question is:

4 "What about a municipal utility?"

5 On the next page you answer yes. That's
6 Mr. Vyrostkco.

7 The question is:

8 "So will load displacement generators
9 receive financial assistance up to the
10 point where they are being paid the full
11 project appraisal avoided cost?

12 And the answer is: "Yes, they can."

13 And my question is, can that answer be
14 correct, that you pay up to the full project appraisal
15 avoided cost? Is that the policy of the NUG division?

16 MR. BROWN: A. Our policy is for all
17 projects we pay up to full avoided cost.

18 Q. Earlier in evidence, and I would ask
19 you then to turn to transcript 68, page 12251, and this
20 was in direct. Mr. Vyrostkco, I believe in your
21 response, you are talking about that Ontario Hydro does
22 not use -- or uses the no-losers test there, and that
23 this formula, and we are looking now at lines 18 to
24 20 -- 16.

25 "It could be termed as the no-loser

1 test, that is correct."

2 And you are talking about your earlier
3 formula where you pay avoided cost less lost revenues
4 and whatever was left would be the incentives; is that
5 not correct?

6 MR. VYROSTKO: A. I believe the way we
7 would pay a load displacement project is to calculate
8 the total avoided cost and subtract the revenue
9 associated with that.

10 Q. I'm sorry, I didn't have the
11 transcript page with me, its 12250, just the page
12 before, top of the page.

13 Your internal rules in the NUG division
14 are avoided cost less lost revenues and whatever is
15 left over is what you can play with in terms of
16 incentives.

17 THE CHAIRMAN: I think also, I am sure
18 you haven't had a chance to read it yet, but this was
19 also discussed yesterday afternoon, I believe it was,
20 and you will find it in --

21 MR. MATTSON: Yes, I did have an
22 opportunity, Mr. Chairman, to read that.

23 Q. I just wanted to have the transcript
24 corrected on the one hand. Volume 74, you are saying
25 that you will pay up to full avoided cost, but the

1 formula is full avoided cost less lost revenue, and it
2 is whatever is left there, that's the incentive that
3 you have to play with; correct?

4 MR. VYROSTKO: A. Well, again for a load
5 displacement project, that is someone who is generating
6 electricity for themselves. The value that they save
7 by not buying from Ontario Hydro or from a utility is
8 part of the incentive that they have to put in the
9 project.

10 So, therefore the full avoided cost is
11 that which they save from not buying from Hydro and
12 whatever is left over to top that up to full avoided
13 cost.

14 Q. All right. And then the first quote,
15 so will load displacement generators received financial
16 assistance to the point where they are being paid the
17 full project appraisal avoided cost, that's wrong then;
18 is it? That is less lost revenues; correct?

19 A. Yes, it's less lost revenues.

20 Q. So they are not --

21 THE CHAIRMAN: But then the load
22 displacer doesn't have to pay a Hydro bill either. I
23 think that's the way it works out.

24 MR. VYROSTKO: That's exactly right.

25 MR. MATTSON: That's right, Mr. Chairman.

1 Q. That leads to my next question, that
2 is, that the formula used by Ontario Hydro with avoided
3 cost less lost revenues, if in fact the avoided cost is
4 below the average rate, then there are no incentives,
5 are there?

6 MR. VYROSTKO: A. If the avoided cost is
7 less than the amount of electricity that the customer
8 would save, then the customer would probably make that
9 decision whether we had a program or not because there
10 was an advantage to the customer to do that.

11 Q. Well, are you aware that at this
12 hearing the evidence has been that avoided costs are
13 below average rates; correct?

14 A. It depends on what you define by
15 average rate.

16 If it's the total system average rate,
17 then the avoided costs could possibly be below that.
18 But the average rate includes transmission, all of the
19 other costs of operating the utility.

20 Q. All right. But just from the
21 evidence, we can go to the transcripts, but from Panel
22 3 and Panel 4 there was some cross-examination on this,
23 and Mr. Shalaby did indicate that avoided cost -- I
24 will turn you to the actual transcript.

25 Volume 54, page 9828. Actually 9827,

1 just before at the bottom of the page, line 21:

2 "QUESTION: And Hydro's avoided cost,
3 in the evidence this hearing, isn't
4 increasing a great deal over the next 25
5 years; is it?

6 "ANSWER: As a matter of fact, it does
7 increase in the 1990s."

8 Mr. Shalaby then on the next page:

9 "ANSWER: There are all sorts of
10 exhibits that show the pattern. It does
11 increase towards the late '90s in our
12 view.

13 "QUESTION: And would this indication
14 from the chairman that rates are going to
15 increase double digits over the next
16 three years, and we have a situation now
17 where avoided costs are lower than the
18 average rates, do you foresee that
19 avoided costs are going to be above
20 average rates within the 1990s?

21 "ANSWER: Things change, as you know,
22 but it is probably going to maintain the
23 relative position of being slightly below
24 average rates."

25 So, for the course of the 90s then, are

1 we to take it that given your policy of the non-utility
2 generation division, there are no incentives then for
3 load displacement cogeneration?

4 MR. SNELSON: A. I think one would have
5 to be careful to see what context Mr. Shalaby was
6 talking in, and I would just like to read the pages
7 before and after to confirm that.

8 Q. Sure.

9 Mr. Snelson, it may be of some help, that
10 we are originally referring to an answer at Panel 3
11 that you gave to Mr. Chapman in Volume 46, page 8325.

12 A. Volume 4--?

13 Q. --6. Page 8625.

14 A. I don't see to have it.

15 MS. KARISH: The reference we had was to
16 Volume 45 on your list, so we don't have Volume 46
17 here.

18 MR. SNELSON: Again, I haven't got the
19 context for the Volume 46, page 8325 reference, but the
20 situation can go either way in different time periods.
21 And with different rates that are being examined it's
22 very hard to make definitive statements in this area
23 that avoided costs are above or below average rates
24 because there are different time periods and there are
25 different classes of customers with different rates.

1 And different end-uses with different avoided costs.

2 So to see the consistency between these
3 things would require looking at the context in which
4 those remarks were made.

5 MR. MATTSON: Q. Well, if it would help,
6 Mr. Snelson, I have the transcript here of the page
7 before. But generally would you be in agreement that
8 Ontario Hydro's avoided costs are below the average
9 rates throughout the course of the 1990s as far as
10 forecasting goes?

11 MR. BROWN: A. I think we have evidence
12 already that we have provided financial assistance
13 already which indicates that there is a benefit, and we
14 are currently working on a small package cogen program
15 for the future, and that was only be being worked on
16 because there is a benefit to be offered.

17 So, the evidence to date suggests that
18 there is a net avoided cost higher than the purchase
19 rate, or the lost revenue.

20 Q. And when you put those packages
21 together, are you in fact taking into account that this
22 new -- that this figure which was brought out at the
23 hearing, that avoided costs, according to your figures,
24 are below average rates, was that factored into those
25 programs?

1 A. We are working on the programs right
2 now and they are using the latest avoided costs that we
3 have and the latest projects of lost revenue.

4 Q. So then you would disagree with the
5 evidence?

6 A. I guess I have to agree with Mr.
7 Snelson, we are not sure of the context. And the
8 comparison between electricity prices and avoided cost
9 is very subject to the in-service years, the life of
10 the projects, the delivery pattern of the facilities.
11 I think it is very hard to say just comparing
12 escalation rates or numbers, that any particular year
13 one year is higher than the other.

14 MR. MATTSON: Mr. Chairman, could I have
15 an undertaking to have this cleared up with respect to
16 what exactly then Mr. Snelson was speaking to at Volume
17 46 when he said that avoided costs were below average
18 rates? It is just...

19 THE CHAIRMAN: If I understand, Mr.
20 Brown, I maybe wrong, but Mr. Brown says that that may
21 be the overall planning situation, but in special
22 circumstances, and programs are tailored to certain
23 situations, that may not be the case. There may be a
24 different pattern. Is that what you are saying?

25 MR. BROWN: That's right.

1 THE CHAIRMAN: I don't know what more
2 they can say than that.

3 MR. MATTSON: Maybe then we can see the
4 actual avoided costs used in that program and where we
5 could find that.

6 MR. BROWN: Well, there isn't a program
7 yet. I am not sure what I can provide that would help
8 you out.

9 THE CHAIRMAN: I guess no one would go
10 into the load displacement business unless there was --
11 you wouldn't give them any incentive unless there was
12 some reason to do that; is that correct?

13 MR. BROWN: That's correct. And there
14 have been examples in the past where your example is
15 true, where there was nothing Hydro could offer that
16 particular customer, but we are in a situation now
17 where we do have something. And it may be particular
18 years in the future where it would revert back to that
19 scenario.

20 MR. MATTSON: Q. But is it not true that
21 there is an incentive for load displacement on the part
22 of the customer as long as avoided costs are below
23 average rates? Just that alone is an incentive for the
24 customer to pursue load displacement; is it not?

25 MR. SNELSON: A. I think the incentive

1 to the customer to pursue load displacement in that
2 circumstance is the comparison between the cost of his
3 generation, the cost of him providing that generation
4 and the cost of him buying that power from Ontario
5 Hydro, which in that circumstance isn't a direct
6 relationship with avoided cost.

7 Q. But certainly if the same technology
8 was going to be used by Ontario Hydro and that
9 customer, then that would be the case; correct?

10 A. Ontario Hydro's avoided costs tend to
11 be based on a mix of technologies rather than one
12 technology, and the customer may be considering a
13 different scale of development that could have
14 different costs because of lesser economies of scale.

15 Q. All right. And, Mr. Snelson, when
16 your division came with the 207 megawatt total of load
17 displacement forecasts for the year 2000, I believe
18 that is correct, 207 megawatts in your NUG plan?

19 MR. BROWN: A. The NUG plan would be
20 directed to me.

21 By the year 2000 the 1990 NUG plan was
22 forecasting a net growth of 492 megawatts.

23 Q. Of load displacement?

24 A. That's correct.

25 Q. And when you considered that

1 forecast, did your division at that time consider that
2 avoided cost would be below average rates, or wasn't
3 that taken into consideration at that time?

4 [11:58 a.m.]

5 A. At the present time we forecast a
6 total potential for non-utility generation by the year
7 2000 and then for planning purposes we split it between
8 purchase and load displacement and that split is based
9 on project information available at the time.

10 Q. All right. Has your division been
11 corresponding with any gas utilities, for example, to
12 ascertain how many of their major individual customers
13 are considering load displacement cogeneration?

14 A. I have talked to the gas industry
15 about, especially about the development of my future
16 program.

17 Q. And are they actively pursuing
18 customers to get them to go towards load displacement
19 programs?

20 A. I think they are actively pursuing
21 their own projects in those customers.

22 Q. That's correct. And when you say
23 that, they are activity pursuing their customers to go
24 to cogeneration load displacement; correct?

25 A. Natural gas cogeneration, yes.

1 Q. And are there major individual
2 industrial customers in Ontario that could individually
3 displace the 492 megawatts? That's too high, is it
4 not?

5 A. I would expect that that would be
6 broken into many projects.

7 Q. Well, there are some major industrial
8 users who are above 200 megawatts alone?

9 A. I believe so but I don't know if they
10 have enough potential at that site. They may not be a
11 large steam user, that's all.

12 Q. But have you looked at that?

13 A. At individual sites? Our forecast is
14 based on high efficiency, so I am not concerned with
15 the amount of electricity they consume. I am more
16 concerned with the amount of steam they use.

17 Q. But in terms of putting together your
18 forecasts for the year 2000, potential load
19 displacement cogeneration, have you considered these
20 major individual industrial consumers and what in fact
21 they could displace if they went towards cogeneration?

22 A. Yes, I have, in that, to determine
23 the load displacement forecast I have had to use
24 project proposal information. And those proposals of
25 low displacement will be coming from those large

1 industries.

2 Q. And have you taken into account that
3 the utilities, the gas utilities are actively seeking
4 to have these mayor industries go towards the load
5 displacement cogeneration? Was that taken into account
6 as well?

7 A. Well, the proposals themselves are
8 looked at by the proponent himself; and then when other
9 people get interested, it is the same project, just a
10 different developer. So yes, I have most of those
11 already.

12 Q. But if the proposal isn't before you
13 today, then you haven't gone any further than that; is
14 that right?

15 A. Not in terms of splitting it between
16 purchase and load displacement.

17 Q. Thank you.

18 Mr. Snelson, one final question. Is
19 there anywhere that I can find in the material before
20 the Demand/Supply Plan Hearing where you can give us an
21 instance where avoided cost is greater than average
22 cost or average rate?

23 MR. SNELSON: A. I can't offhand quote
24 where that comparison is made. It may very well have
25 been made in a number of places but I haven't got all

1 Panel 4 interrogatories in my head and a variety of all
2 the exhibits.

3 Q. All right, Mr. Chairman, maybe it
4 would be easiest then if we could have an undertaking
5 just to -- Ontario Hydro can direct Energy Probe with
6 respect to where they might find an instance where
7 avoided cost is greater than average rate.

8 A. I think the comparison that matters
9 is where avoided cost for a particular proposal, how
10 that compares to the rate for that proposal. So, for
11 instance, average rate to all customers is not very
12 relevant to a load displacement project by a major
13 industrial customer who buys power at high voltage and
14 therefore doesn't get charged the cost of the lower
15 voltage parts of the transmission system and pays a
16 lower rate.

17 So, in terms of load displacement
18 generation, what is relevant is the rate to that class
19 of customer for that type of power rather than the
20 average rate for the whole system.

21 Q. Mr. Snelson, Ontario Hydro will pay
22 up to avoided costs and I think it has been in evidence
23 that in fact the cost to the customer may in fact be
24 much lower than avoided cost. You don't look into
25 that, do you, when you accept a proposal, what in fact

1 their costs are?

2 A. Are we talking about load
3 displacement or purchase? Are we talking about
4 non-utility generation?

5 Q. Yes.

6 A. I believe Mr. Vyrostk has talked
7 about the way in which they negotiate projects.

8 Q. All right. And I just would like to
9 see with respect to the evidence at the Demand/Supply
10 hearing where avoided cost, speaking about instances
11 where avoided cost may be above the average rate, and
12 we just haven't been able to find that. And if I could
13 have an undertaking just --

14 THE CHAIRMAN: I think what Mr. Snelson
15 was saying was it is the rate that the proponent for
16 the NUG, the NUG proponent, has to pay that goes into
17 the formula to decide what Hydro will pay in a given
18 circumstance. So the average rate, if I understand Mr.
19 Snelson correctly, doesn't apply to that situation.

20 MR. MATTSON: I agree, Mr. Chairman, and
21 there is no way they can provide us with that
22 information as they have indicated that they don't in
23 fact -- what the cost of it is to the consumer, so I
24 think that's relevant to what I am asking for, just in
25 terms of Hydro and their forecasting, when they have a

1 situation where avoided cost is above their average
2 rate at this Demand/Supply Plan Hearing.

3 I recognize the distinction with respect
4 to load displacement. But with respect to their load
5 displacement programs, et cetera, it is very relevant.

6 MR. SNELSON: I can point to examples in
7 the evidence where avoided cost is higher than average
8 rates but I don't think it is very helpful to you. The
9 examples that are quoted for the avoided cost of fairly
10 low capacity factor dispatchable generation go up to 10
11 cents a kilowatthour, which is clearly higher than the
12 average rate, but I don't believe it is very relevant
13 to the question you perhaps want.

14 MR. MATTSON: Q. That would be the
15 avoided cost with respect to dispatchable generation,
16 and you are taking the average rate, but not generally
17 with respect to planning purposes; correct? You don't,
18 in fact, consider that when you look at contracts with
19 non-utility generators, do you?

20 MR. SNELSON: A. Avoided cost in cents
21 per kilowatthour is different potentially for every
22 project according to that project's characteristics.

23 Q. I will move on.

24 Mr. Vyrostko, has the NUG division
25 studied the issue of wheeling and how it might affect

1 NUG potential in Ontario?

2 MR. VYROSTKO: A. We actually have
3 looked at wheeling and its implications on our program.

4 Q. Can you define wheeling to the panel,
5 what it is?

6 A. Wheeling generally is the transfer of
7 power between two operating utilities that can then use
8 that power to advantage to themselves under specific
9 circumstances.

10 Q. And in that definition, there goes
11 Ontario Hydro's rule, correct, that they will only
12 wheel between two operating stations owned by the same
13 owner?

14 A. Our policy with respect to wheeling
15 says that we will in fact wheel power between one
16 operating entity and another location of that same
17 operating entity.

18 Q. All right. Now earlier we discussed
19 factors affecting gas prices and how competition
20 brought prices down. Wasn't it the regulatory
21 innovation of wheeling that allowed competition from
22 different gas producers in the field while leaving the
23 transmission and distribution services to the
24 utilities?

25 A. Deregulation in the gas industry

1 allowed for competition of the suppliers and that is
2 the gas fields in, let's say, Western Canada.

3 Q. And it was this regulatory innovation
4 of wheeling that allowed them to do this; correct?

5 A. I don't think wheeling has anything
6 to do with that. I think the wheeler is still, you
7 have got the transporter which is typically TransCanada
8 Pipeline that in fact transports the power, and then
9 what you have is in most cases a producer selling via
10 the system.

11 Q. But there are many different gas
12 wells that go into the one pipeline; correct?

13 A. There are situations where there are
14 different gas pipelines going through the system to
15 specific customers.

16 Q. And without the gas utilities and the
17 pipeline being able to wheel there would not have been
18 deregulation in the gas industry; correct?

19 A. I guess my interpretation of wheeling
20 in the definition is that you have two entities that
21 would in fact share facilities to take advantage of
22 operating economies or operating flexibilities to help
23 themselves manage. And I guess in this case here you
24 have the gas utility that would be wheeling but the
25 end-use customer really isn't wheeling because the

1 end-use customer just accepts electricity -- or accepts
2 natural gas.

3 Q. Mr. Vyrostk, is it true that Hydro's
4 lack of wheeling policy has been a significant matter
5 of discussion at the OEB since 1987?

6 A. Wheeling has been discussed at the
7 OEB, yes, since 1987.

8 Q. Can I have you turn to that Exhibit
9 350. And if we could look at page 2, that is HR 16,
10 it's 1987. It is the Report of the Board, Volume 1,
11 and it is page 6/11 of the report, page 2 of the
12 exhibit.

13 At the bottom on power wheeling, in the
14 last paragraph:

15 "In the future, as more independent
16 power generators are connected to the
17 grid, the need for Hydro to accommodate
18 the producers and wheel power will arise
19 more frequently. Given the situation of
20 other electric utilities in the United
21 States and the evolution of 'wheeling' in
22 the gas industry, the Board believes that
23 Hydro's present wheeling policies are
24 inappropriate."

25 My question is: Has Ontario Hydro's

1 wheeling policy since that time changed?

2 A. No, each year we have reviewed our
3 wheeling policy to see whether it's in fact
4 applicability to the industry and to date we have not
5 changed it.

6 Q. Now, can we go to page No. 5 of the
7 exhibit. This is now HR 18, the transcript, Mr.
8 Vyrostkco.

9 THE CHAIRMAN: An OEB transcript?

10 MR. MATTSON: An OEB transcript of HR 18,
11 Monday, June 12, 1989.

12 Q. And Mr. Vyrostkco, I believe this is
13 your response at page 5 of the exhibit. I will read it
14 into the record:

15 "A restriction of limiting wheeling to
16 within the Province and limiting it to a
17 customer for that customer's use
18 somewhere else.

19 "I guess, what we are trying to do is
20 to ensure that any benefits to the system
21 stay within the system and so on. And if
22 there is any value of generation in
23 Ontario it stays in Ontario. So I think
24 from that perspective, I don't think we
25 want to encourage generation going

1 outside of the province. So I think from
2 that we want to limit the wheeling within
3 the province at this time.

4 "The other issue of wheeling is to
5 have a customer who will likely generate
6 electricity to sell to any other
7 customer. Then, again, you really look
8 at, you know, what are you doing from an
9 overall retail perspective? You are
10 opening the retailing of electricity to
11 anybody and everybody.

12 "At this stage of the development of
13 the utility business in Ontario, I am not
14 sure what value that has to anyone.
15 Because of that, right now we are saying
16 our policy is to just generate for the
17 customer within the province of Ontario."

18 And I have two questions from that, Mr.
19 Vyrostkco. First of all, has that policy changed from,
20 you note this is in 1989, at this stage of the
21 development of the utility business in Ontario. Has
22 that changed today.

23 MR. VYROSTKO: A. No, it has not.

24 Q. And my second question is, Mr.

25 Vyrostkco, arising out of your statement that you are

1 opening the retailing of electricity to anybody and
2 everybody. What's so bad about that?

3 A. I think there have been many studies
4 in the United States with respect to retail wheeling
5 because this is what this issue is. And from what I
6 understand, many of the jurisdictions in the United
7 States as well as ourselves have looked at it and have
8 determined that retail wheeling which is in fact one
9 customer generating and selling to another customer,
10 does not bring benefits to the broader context of the
11 utility service territory.

12 And because the utility and all of its
13 obligations are to try to bring benefits to all
14 ratepayers, therefore you are then discriminating and
15 having some benefits to a very selected few, and that
16 is to those who are in fact making those negotiations.

17 Q. Do you have those studies?

18 A. I don't personally have it but the
19 one study was with the Federal Energy Regulatory
20 Commission in the United States.

21 Q. And that position then would be in
22 contrast to the Board's position at HR 16, which notes
23 that situation of electric utilities in the United
24 States and the evolution of wheeling in the gas
25 industry, the Board believes Hydro's present wheeling

1 policies are inappropriate. So it was that study that
2 you based your position upon?

3 A. No, the study that I am referring to
4 I believe was completed and dated in 1989 which is
5 subsequent to this.

6 I think the other confusion that
7 typically arises when looking at the United States and
8 Canada is that the wheeling that typically gets
9 discussed in the United States is wholesale wheeling as
10 opposed to retail wheeling. There is very little
11 retail wheeling. There isn't any in Canada as well.

12 Q. If you could look at page 9 of the
13 exhibit, it is the same HR 18. And we have a Board
14 member, Mr. Daub, Ontario Energy Board member Mr. Daub,
15 and at page 16 is questioning you, Mr. Vyrostko, and he
16 says -- or at page 10 I will start -- at line 10, I
17 mean, page No. 9:

18 "Exactly. In the next paragraph you
19 make reference to the fact that the other
20 issue is to have a customer who will
21 likely generate electricity to sell to
22 any other customer, and then that way you
23 would be opening the retailing of
24 electricity to anybody and everybody.

25 "At this stage of the development of

1 the utility business in Ontario, I am not
2 sure what value that has to anyone." We
3 are not talking about an infant industry
4 here. I mean, Ontario Hydro has been in
5 business for years.

6 "This sounds to me like you are a
7 monopolist trying to keep other people
8 out of the retailing of electricity. Is
9 that why it is not of value to anyone?"

10 And Mr. Vyrostko, you gave a response at
11 that time in 1989. Has that response changed at this
12 time in light of this new report or do you have any new
13 information upon which --

14 THE CHAIRMAN: Which new report? The
15 United States report?

16 MR. MATTSON: Yes, the 1989 study.

17 MR. VYROSTKO: I think there is a number
18 of areas that I could probably table here. And that
19 is, as I said earlier, we have looked at wheeling every
20 year since this has come up. We have, for instance,
21 reviewed this within the industry, the Ontario
22 government's policy paper on parallel generation has
23 concluded that retail wheeling is not an issue at this
24 time. And that was in 1989. And as a result of the
25 new government, I believe they reviewed that policy

1 paper again this year and concluded the same, that it
2 is not an issue.

3 I believe in last year's OEB report, they
4 asked that a task force be set up to in fact look at
5 retail wheeling, the Ministry of Energy do that. That
6 task force, the Ministry of Energy brought that to the
7 non-utility generation advisory council which has
8 representatives of the entire industry there, and the
9 conclusion was that wheeling, retail wheeling, was not
10 of value to the non-utility generation industry.

11 And so, we have been taking signals from
12 that group and we still conclude that we do not see any
13 value in retail wheeling.

14 MR. MATTSON: Q. All right. Mr.
15 Vyrostk, you have mentioned a number of reports, et
16 cetera. In the exhibit the material is there, and at
17 HR 18 at page 14, if you could turn to that. And this
18 is the report of the Board now in response to --

19 THE CHAIRMAN: Which year was that?

20 MR. MATTSON: This is still HR 18 now,
21 Mr. Chairman.

22 THE CHAIRMAN: The year?

23 MR. MATTSON: 1989.

24 THE CHAIRMAN: 1989?

25 MR. MATTSON: Yes, Mr. Chairman.

1 Q. And the middle of paragraph and I
2 will read it into the record:

3 "As noted previously, Hydro is
4 unwilling to wheel power from a NUG plant
5 to the premises of another buyer of that
6 power. The non-utility generator must
7 either own another plant in Ontario which
8 can use the power, or sell to Ontario
9 Hydro. In the Board's view, this
10 wheeling policy of the Corporation is
11 outmoded. The Board urges Hydro to make
12 practical system limitations the basis of
13 the policy for, and terms and conditions
14 under which power is wheeled from
15 location to location, rather than, as it
16 appears at present, the absolute
17 maintenance of Hydro's retail monopoly."

18 So my question then, Mr. Vyrostko, is at
19 this time, at the end of HR 18, the Board certainly
20 wasn't in agreement that it wasn't of importance to the
21 ratepayer generally, were they?

22 [12:20 p.m.]

23 MR. VYROSTKO: A. I guess I can't
24 interpret whether they saw this from the perspective of
25 the ratepayer or not. They were making a

1 recommendation, or at least a statement with respect to
2 how they saw wheeling within the context of non-utility
3 generation.

4 Q. And within the context of the public
5 interest?

6 A. Again, I guess I don't know. I can't
7 interpret that with regard to what all the interests
8 were when they were making the statement.

9 Q. All right. Mr. Vyrostk, finally, I
10 have HR 19, you spoke about the argument going forth
11 year to year, and I have the HR 19, Ontario Energy
12 Board, final argument of the Hydro, Board counsel
13 argument and the Board report. If you could look at
14 page No. 18 of the exhibit, this is Ontario Hydro's
15 final argument at the bottom of the page, it has
16 Hydro's position under wheeling.

17 That is still Ontario Hydro's position, I
18 take it?

19 A. Yes, it is.

20 Q. And the next page, response to
21 argument, page 19, and I am looking in the middle of
22 last paragraph:

23 "Hydro fails to see the rationale for
24 this position and considers it unfounded.

25 Testimony shows that there are a number

1 of reasons that generators are shifting
2 to purchase type generation. Discussions
3 with generators and Hydro's past
4 experience does not identify the wheeling
5 policy as a reason for shift."

6 And then if we turn to page 21.

7 MR. B. CAMPBELL: With respect, Mr.
8 Mattson, that's not a complete set of the rationale for
9 Hydro's position. If you are suggesting that it is, I
10 ask that you read the entire section.

11 MR. MATTSON: All right, then I will.

12 THE CHAIRMAN: It's not a statement of
13 Hydro's position in any event. It's the Board staff's
14 response to Hydro's position.

15 MR. B. CAMPBELL: No, Mr. Chairman. The
16 document in front of you that my friend is referring to
17 is an excerpt from Ontario Hydro's argument filed in
18 the OEB.

19 The way that the OEB argument works is
20 that all of the other parties file their position,
21 their argument at the end of the hearing, and then
22 Hydro, in effect, responds to that in one consolidated
23 document.

24 And when my friend, in looking at the
25 response to argument section, read very selectively

1 from the rationale from Hydro's position.

2 MR. MATTSON: I apologize, Mr. Chairman,
3 I will read it all; it's just a matter of time.

4 Q. The response to argument, I will
5 start at the top of the page then, Mr. Vyrostk.

6 "OEB staff recommends that Hydro
7 should revise its wheeling policies so as
8 to enable non-utility generators to
9 transmit power to unrelated third
10 parties. (OEB staff argument, page 41.)
11 Hydro's position on third party wheeling
12 has not changed since HR 18. To date
13 there has been little interest in
14 wheeling in the province. In addition,
15 results of a NUG industry survey ranks
16 wheeling low with regard to its relative
17 importance among Hydro's NUG activities.
18 Hydro submits that there is little
19 evidence of any need to review the
20 wheeling policy, and that the existing
21 wheeling policy is appropriate.

22 OEB staff also submits that one reason
23 generators are shifting from load
24 displacement to purchase type generation
25 is that the generators view purchase

1 generation as a method of avoiding
2 Hydro's restrictive wheeling policy.
3 Hydro fails to see the rationale for this
4 position and considers it unfounded.
5 Testimony shows that there are a number
6 of reasons that generators are shifting
7 to purchase type generation. Discussions
8 with generators and Hydro's past
9 experience does not identify the wheeling
10 policy as a reason for shift."

11
12 Now, is that still Hydro's position today
13 as read into the record.

14 MR. VYROSTKO: A. With respect to
15 wheeling?

16 Q. Yes.

17 A. Yes, it is.

18 Q. All right. And if you could go to
19 page 23, which is the report of the Board, after -- at
20 HR 19, hearing submissions by Board staff and Ontario
21 Hydro on the issue under wheeling:

22 "The Board finds Hydro's explanation
23 as to why it will not provide third-party
24 wheeling to be less than convincing. It
25 believes that a task force should be set

1 up with the industry and other key
2 players to develop an appropriate
3 wheeling policy, including charges,
4 standards and backstopping provisions.
5 And then it goes on to set out the
6 recommendation, No. 10.

7 "The Board recommends that the
8 Minister of Energy establish a task force
9 from industry, Hydro and Government to
10 examine and report on appropriate
11 policies and practices for wheeling
12 third-party power in Ontario."

13 Has that been done, Mr. Vydrostko?

14 MR. B. CAMPBELL: Didn't he just speak to
15 this, that the task force, that the Ministry of Energy
16 took steps to set this up and that it was met with
17 universal indifference?

18 THE CHAIRMAN: Those are your words, Mr.
19 Campbell. He did say that the task force had been set
20 up and it put out its views. I think that's what he
21 said. And that those views, whatever they were, didn't
22 prompt Hydro to change its existing policy. The NUG
23 council, yes, that's right.

24 MR. VYROSTKO: That's correct. The task
25 force, the Ministry of Energy saw fit to use the

1 non-utility generation advisory council as the task
2 force because it in fact had the representatives from
3 industry, Hydro and government. And they in fact
4 reviewed this and concluded that wheeling was not an
5 issue to be discussed or to go further with.

6 MR. MATTSON: Q. And this was in 1989,
7 correct, Mr. Vydrostko?

8 MR. VYROSTKO: A. This was in 1991.

9 Q. 1991. Why were not in the interests
10 of the customer taken into account when you say
11 industry, Hydro and government? Were the customers'
12 interests taken into account at this time?

13 A. I think part of the industry, our
14 members are customers of Ontario Hydro.

15 Q. Correct.

16 A. And so therefore they are
17 representing both the industry from the broader context
18 and themselves as customers, and they did not see any
19 value in having retail wheeling.

20 Q. So the industry represented the
21 customer then, that's as far as it goes, or were there
22 any other views taken?

23 A. Well, there were three groups of
24 people, industry, Ontario Hydro, and the government,
25 and Ontario Hydro represents its ratepayers and the

1 government represents the public, and the industry
2 represents their own views both as associations and as
3 individual customers. And so with all of that
4 representation, it was concluded that wheeling didn't
5 have to change.

6 Q. There was no analysis then, direct
7 signals from the customer? You didn't go to the
8 customers with this issue?

9 A. Well, as I say, there were
10 representatives from customer groups in that advisory
11 council, and that's what their viewpoints were.

12 Q. All right. If in fact wheeling was
13 put in place by Ontario Hydro, Mr. Vyrostk, what sort
14 of effect would this have on load displacement
15 generation in Ontario, the potential that's now
16 forecast?

17 MR. BROWN: A. It will go down.

18 Q. And on what basis do you believe that
19 to be the case, Mr. Brown?

20 A. Essentially you are moving load
21 displacement into purchase categories because these
22 generators are now selling to other people.

23 Sorry, let me change that.

24 The load displacement will go down. In
25 fact, these NUGs will not be part of our program

1 because they are not selling to Ontario Hydro and they
2 are not displacing any load, they are selling to
3 somebody else. So the customer and the generator are
4 removed from the Ontario Hydro system.

5 Q. Generally in the province what would
6 happen to load -- or with load displacement in the
7 province outside of Hydro, what would happen with load
8 displacement in the province if wheeling was put in
9 place?

10 A. You are reducing the number of
11 Ontario Hydro customers, therefore load will go down.

12 Q. Mr. Brown, would NUGs increase?

13 A. If wheeling is allowed? I can't
14 comment on that.

15 NUGs are increasing now to sell to
16 Ontario Hydro. They may be offsetting, if they are
17 not selling to us, they may sell it to somebody else if
18 this happened.

19 Q. Would this be a further incentive for
20 NUGs?

21 A. I don't believe so.

22 Q. Do you have a rationale for that?

23 A. I think our evidence is that there is
24 no wheeling required or asked by NUG proponents. They
25 are quite happy dealing with Ontario Hydro.

1 I believe the rationale for that is they
2 are getting better economics by selling to Ontario
3 Hydro than selling to anybody else.

4 Experience in British Columbia who has a
5 policy on wheeling has shown that nobody has taken
6 advantage of that policy, and there are people selling
7 to the utility.

8 Q. And the better economics, would that
9 take into account the double digit rate increases over
10 the next three years that you are now anticipating?

11 A. I think that's three years out of 25.
12 I think you have to look at the long term.

13 Q. So beyond the three years they are
14 relying on forecasts, Ontario Hydro's forecasts?

15 A. I can't comment on how customers make
16 their own decisions.

17 There are a lot of factors involved with
18 wheeling that are not accounted for in your analysis so
19 far.

20 Q. Well, Mr. Brown, beyond the arguments
21 that have gone before the OEB, is there any analysis in
22 Ontario Hydro's position that I am missing?

23 A. I guess from a forecasting point of
24 view, we don't view wheeling as being an economic
25 proposal at this time. It's essentially adding costs

1 to somebody who can sell it to Ontario Hydro at a
2 higher price.

3 Q. Mr. Brown, has the Ontario Energy
4 Board ever -- I know the task force was set up, but has
5 the Ontario Energy Board ever looked at this issue
6 since this task force wasn't set up and agreed that now
7 it's no longer an issue?

8 MR. VYROSTKO: A. I think that HR 20,
9 which is the report of the Board this year, did not
10 include any recommendation with respect to wheeling.

11 Q. And that was because of the task
12 force; correct?

13 A. I can't say it's because of the task
14 force. I think because it may have not been an issue
15 from their perspective.

16 THE CHAIRMAN: Just to clarify. Which
17 came first, HR 20 or the task force decision?

18 MR. VYROSTKO: The task force decision
19 came first.

20 MR. MATTSON: Q. The task force came out
21 in 1991, did it not, Mr. Vyrostko?

22 MR. VYROSTKO: A. Early 1991, that's
23 correct.

24 Q. And the Issues List for HR 20 was set
25 in early 1991, too, was it not?

1 A. That's correct.

2 MR. B. CAMPBELL: Just a minute. The
3 Issues List at the OEB was set by a Board ruling in May
4 of 1991.

5 THE CHAIRMAN: Well, when was the task
6 force report made public?

7 MR. VYROSTKO: I think it was made public
8 at the hearing itself.

9 THE CHAIRMAN: At the hearing that
10 resulted in HR 20?

11 MR. VYROSTKO: HR 20, that's correct.

12 MR. MATTSON: Q. And that was after the
13 Issues List had been set; correct?

14 MR. VYROSTKO: A. That would be correct.

15 Q. Thank you.

16 Now, I would like to move into the issue
17 of dispatchability very quickly. There has been a lot
18 of cross-examination on this issue.

19 Is Hydro's system of integrating NUGs
20 into the system fairly characterized as administered
21 competition?

22 A. Would you please state that again?

23 Q. Sure. Is Hydro's system of
24 integrating NUGs into the system fairly characterized
25 as administered competition?

1 MR. B. CAMPBELL: I'm sorry, I don't
2 understand what the term means, Mr. Chairman. I don't
3 know what he is getting at in using that terminology,
4 and I think if we could have an explanation before the
5 witness is asked to answer the question.

6 THE CHAIRMAN: Administered competition,
7 what do you mean by administered competition?

8 MR. MATTSON: Sure, Mr. Chairman.

9 Q. Hydro relies on up to avoided cost
10 pricing to establish the price to Hydro of the NUG
11 power; correct?

12 MR. VYROSTKO: A. We will pay up to full
13 avoided costs, yes.

14 Q. And you don't rely on the value of
15 power as it changes from time to time in terms of
16 day-to-day, you are not paying what the power is going
17 for at any given moment, are you?

18 A. Our avoided costs that we pay the NUG
19 developer reflect the changing circumstances of our
20 system over the long-term. And so therefore, in terms
21 of the value that the project has, it does recognize
22 changing values from year to year.

23 In terms of the way we pay the NUG
24 proponent, having then gotten the value of the project
25 over the lifetime of the project, we will pay that

1 developer up to the full value of that in terms of the
2 contract price. That's the negotiated price. Then on
3 a month by month basis we pay the proponent for what
4 the proponent provides in terms of generation.

5 Q. All right. And are you aware of the
6 system used in the United Kingdom where energy is
7 priced every half hour, capacity is valued daily?

8 A. I understand that they have broken
9 their pricing down to a much further scale than we
10 have.

11 Q. All right. And is it true that
12 reliance on the avoided cost system of paying for NUGs
13 results in some occasions when the contract price will
14 be well above the value of power and other times when
15 it will be well below?

16 MR. SNELSON: A. The contract price for
17 NUGs tries to recognize the long-term value of power,
18 long-term marginal cost, if you like, which reflects
19 the incremental capital costs of providing new
20 generation, as well as the incremental costs of
21 operating generation.

22 The system you are referring to, I think,
23 is based mainly upon short-run marginal cost, which is
24 a different concept.

25 Q. It's based upon the market, correct?

1 Is that another way of saying it?

2 A. Sorry, based upon what?

3 Q. What the market will pay for power?

4 A. There appears to be some sort of
5 market. I am not familiar with all the details of the
6 system other than that it is a very short-term look
7 into the future.

8 Q. All right. And your system is based
9 upon avoided costs which are forecast; correct?

10 A. Forecast value over the live of the
11 project.

12 Q. So one of differences there is, one
13 price is through the market, one price is power through
14 the market, and another price is price through forecast
15 avoided costs; correct?

16 A. I think that what we are talking
17 about with respect to dispatchable power from
18 non-utility generators is to get a better match between
19 the short-run operating costs, and the incremental
20 operating costs of non-utility generators, and that's
21 why we are seeking dispatchable power. So, that is the
22 way of getting the short-term factors accounted for in
23 the decision-making.

24 I think when you are looking at the
25 long-term marginal cost and the short-run marginal

1 costs, they are entirely different things.

2 Q. My question though is the distinction
3 between the two, the avoided cost forecasts versus the
4 market price in the power. There is a distinction
5 there, correct, one is based upon forecasts, whether it
6 be short-term or long-term avoided cost, and the other
7 is based upon what the market will pay for power at any
8 given time?

9 DR. CONNELL: Mr. Mattson, are you still
10 referring to the British system as the reference point?

11 MR. MATTSON: That is one analogy. I am
12 not completely sure as to how they do it. I know they
13 price every half hour. But I am just comparing the two
14 different systems.

15 DR. CONNELL: But we haven't had any
16 evidence which exposes that system and the way it
17 operates. I don't think I would want to assume that
18 it's a free market unless this panel is able to provide
19 us evidence to that effect.

20 MR. MATTSON: The only evidence, Mr.
21 Vyrostk understands that that's the way it's done.
22 That's all we have at this point, thought, Dr. Connell.

23 MR. VYROSTKO: I'm sorry, I
24 understand...?

25 MR. MATTSON: Q. That's the way it's

1 done in the U.K.

2 MR. VYROSTKO: A. I said I understand
3 that they do in fact have pricing that's shorter than
4 ours. I don't know what that is and how it's used.

5 Q. All right. But that is a distinction
6 made, correct, between avoided costs, forecasting
7 casting avoided costs and pricing power according to
8 what the market will pay according to what the demand
9 seeks?

10 MR. SNELSON: A. I think there are
11 different types of market. And while I am not familiar
12 with all of the details of the British systems, it
13 seems to me that is more like a spot price for a market
14 price as compared to a long-term contract price.

15 So there are different types of markets
16 and there are different prices that are applicable for
17 different time frames according to the commitments that
18 are being made.

19 Q. All right. And, Mr. Snelson, is it
20 true that Ontario Hydro moved to the limited
21 curtailment, i.e., to allow Hydro to refuse to buy, as
22 opposed to the older take-or-pay contracts with
23 curtailment, is it true you moved towards that to get a
24 better mix between what the value of power is versus
25 what your long-term avoided costs are forecast at?

1 A. It was to give some flexibility to
2 avoid specific uneconomic situations where we might be
3 buying power from a non-utility generator during a
4 period when the short-term value of the power was very
5 low because of nuclear or hydraulic generation being
6 the marginal fuel.

7 Q. All right. Is it true that the
8 current system of forced contractual curtailment to
9 achieve economic dispatch limits the development of
10 economic generation for non-base load application?

11 A. Can you repeat that question again,
12 please?

13 Q. Sure. Is it true that the current
14 system of forced contractual curtailment to achieve
15 economic dispatch limits the development of economic
16 generation for non-base load application?

17 [12:40 p.m.]

18 A. I would prefer to turn that the other
19 way around, that are seeking proposals for dispatchable
20 of power and being willing to consider a variety of
21 contractual arrangements for that dispatchable power
22 is intended to encourage the development of non-base
23 load non-utility generation.

24 Q. But Mr. Snelson, is it not true that
25 forced curtailment will only reduce the amount of NUG

1 power delivered when Hydro's marginal costs are low but
2 won't encourage peaking NUGs to deliver peak power when
3 marginal costs are high?

4 A. There are time-of-use rates that are
5 available that encourage NUGs to deliver power during
6 the peak periods when the value is generally higher.

7 Q. All right. And the use of time
8 differentiated avoided cost reduces the difference
9 between the actual marginal value of power and the
10 price Hydro will pay for NUGs; correct?

11 A. That's a complicated question. Can
12 you just say it again. I want to be clear I understand
13 it.

14 Q. The use of time-differentiated
15 avoided cost reduces the difference between the actual
16 marginal value of the power and the price Hydro will
17 pay for NUGs?

18 A. It tends to make the price we pay
19 closer to the marginal cost on a short-run basis.

20 Q. And theoretically is it possible, Mr.
21 Snelson, to revamp the system to reflect the actual
22 marginal value of power?

23 MR. BROWN: A. I think it is possible
24 for a contract to do such a thing, but then I think it
25 would be very doubtful that that project will get

1 financing because he would have no idea what he was
2 getting paid.

3 Q. Has Ontario Hydro considered this as
4 an option, as an alternative to your present dispatch?

5 A. I guess our evidence to date is we
6 are not sure how to incorporate dispatchability into
7 the system. The curtailment that we are looking at is
8 essentially base load and the curtailment hours are
9 incorporated into the calculation of the purchase rates
10 for those projects.

11 As we move towards dispatchable projects,
12 we are going to have to determine a mechanism to pay a
13 near to margin based on other contractual agreements
14 that will assist the proponent in getting a fuel
15 contract and paying off his capital. And we don't know
16 the rules for that yet.

17 Q. Mr. Brown, are you aware that
18 Niagara-Mohawk, a neighbouring utility, is using
19 real-time prices for industrial users?

20 A. No, I am not.

21 MR. B. CAMPBELL: I'm sorry, Mr. Mattson,
22 your question relates to NUG pricing or power sales
23 pricing?

24 MR. MATTSON: Power sales pricing, Mr.
25 Campbell.

1 MR. B. CAMPBELL: Well, that is not
2 something that this panel would deal with in any event
3 and has been covered and spoken to. If you review the
4 evidence of Mr. Harper in Panel 4, you will find that
5 he addressed that matter.

6 MR. MATTSON: Thank you.

7 Q. Mr. Snelson, the current system of
8 dispatch you are using, does it virtually guarantee
9 that producers are either being overpaid or underpaid
10 at any given moment.

11 MR. SNELSON: A. That depends on what
12 you consider to be a fair price. We think they get a
13 fair price for their power over the term of the
14 contract.

15 Q. And do you have any studies or
16 analysis to base this on that over the term of a
17 contract this will work out, this will average out.

18 A. That's what the avoided cost
19 methodology attempts to achieve.

20 Q. Do you have any studies or analysis
21 that in the past those have been correct? Is there
22 anything to support that assumption?

23 A. The avoided cost is a forecast of the
24 value of power; and like all forecasts, then sometimes
25 they are perhaps higher than they would be if you had

1 known the future with 20/20 foresight; sometimes they
2 will be lower.

3 Q. But you have no analysis then on past
4 record?

5 A. I know that our avoided cost
6 estimates have sometimes moved up and sometimes have
7 moved down.

8 Q. Finally my last area of
9 cross-examination is with respect to the new guidelines
10 for project proposals over 5 megawatts. And I believe
11 that's Exhibit 346, Mr. Chairman.

12 I will be very quick. Now at page 3, the
13 first page 3 of the new guidelines for non-utility
14 generation proposals over 5 megawatts, you speak of an
15 interim period; and at page 2 you speak of "Until such
16 time as the above two items are sufficiently --

17 THE CHAIRMAN: Wait a minute. I am not
18 sure which page we are at.

19 MR. MATTSON: I'm sorry, Mr. Chairman.

20 THE CHAIRMAN: I've got 346. Not all the
21 pages are numbered. Are you looking at the page headed
22 "New Guidelines"?

23 MR. MATTSON: Yes, Mr. Chairman.

24 THE CHAIRMAN: Right.

25 MR. MATTSON: Q. And the first 3rd page,

1 it starts under the title of "For an interim
2 period...." and it goes on "Ontario Hydro will require
3 proposals...."

4 And on the second page, just prior to
5 that, in the third indented paragraph, it says:

6 "No new proposals for large projects
7 over 5 MW should be accepted in the
8 interim, except as noted below, until
9 such time as the above two items are
10 sufficiently resolved that their
11 implementation plans and timing are
12 clear...."

13 And it goes on.

14 And my question is: I take it then we
15 have no clear idea of when these guidelines will run to
16 or when they will end; is that correct?

17 MR. VYROSTKO: A. That's correct. We do
18 not have a concluding date to them.

19 Q. Is it fair to assume that they will
20 run at least until the decision has been made by this
21 panel at the Demand/Supply Plan.

22 A. It may. And it may not. Depending
23 on what the circumstances are with respect to
24 non-utility generation business.

25 Q. Reading these guidelines, Mr.

1 Vyrostko, I take it that there are two major objectives
2 in formulating these and one is the desire to increase
3 dispatchability by Hydro?

4 A. That's the second one, yes.

5 Q. And the first then is the desire to
6 restrict NUG projects to renewables and cogeneration?

7 A. It's to encourage high-efficiency
8 cogeneration projects.

9 Q. All right. Now is it true, Mr.
10 Vyrostko, that many renewable projects such as wind,
11 solar and run-of-the-river hydro are close to 100 per
12 cent incompatible with dispatchability by Hydro?

13 A. First of all, most of the project
14 wind and solar, unless they are very large, would not
15 be part of these guidelines because typically they
16 would be under 5 megawatts; and under 5 megawatts, we
17 will continue with our business as we have up until
18 now.

19 Q. But otherwise is it true that many
20 renewable projects are close to 100 per cent
21 incompatible with dispatchability by Hydro?

22 A. That's correct.

23 Q. And is it not also true that
24 virtually all cogen projects are close to 100 per cent
25 incompatible with dispatchability by Ontario Hydro?

1 A. I can't say that. It depends on the
2 type of steam requirements and the flexibility with
3 using that steam and producing electricity.

4 Q. That's fair. They are only needed
5 when their heat is needed; correct? They only run when
6 their heat is needed, correct, the cogenerators?

7 A. Well, no, because some of them use
8 steam and so therefore the steam drives the process,
9 the industrial process, which could in fact operate 365
10 days of the year.

11 Q. So you are saying --

12 THE CHAIRMAN: The evidence is at this
13 point that there are no dispatchable cogeneration NUGs,
14 that's correct, at the present time?

15 MR. VYROSTKO: That's correct.

16 THE CHAIRMAN: Either in-service or
17 committed?

18 MR. VYROSTKO: That's correct.

19 MR. MATTSON: Q. So it isn't 100 per
20 cent incompatibility. There is a possibility they may
21 be compatible with dispatchability; correct?

22 MR. VYROSTKO: A. Yes, there could be
23 some dispatch that would tie in with cogen.

24 Q. Is it not true, Mr. Vydrostko, that
25 say someone building a non-cogenerator combined-cycle

1 gas turbine would be happy to run their plant when
2 Hydro says power is most valuable and pays accordingly
3 and maybe would even would shut it down when Ontario
4 Hydro says the power is least valuable?

5 A. We have not seen that to date.

6 Q. You haven't seen that in the
7 non-cogen, your major supply NUGs?

8 A. No, we have not seen that in any
9 projects to date.

10 Q. Have you ever paid according to what
11 the marginal cost is to date?

12 A. We have identified in the
13 Demand/Supply Plan illustrative rates for dispatchable
14 projects; and those rates, I suspect, were not
15 sufficient enough to have any developer proposing
16 dispatchable projects.

17 Q. So given those rates. But if you
18 paid accordingly in your experience at the non-utility
19 generation division, would you agree that there would
20 be independent power out there who would be happy to
21 run combined-cycle turbines if they were paid according
22 to the value of energy at the peak periods?

23 A. Well, again, I can't say that.
24 That's part of what the guidelines are trying to do is
25 to, in fact, encourage proponents to put forward

1 dispatchable projects and to see whether in fact they
2 can make those projects economic.

3 Q. But don't your guidelines now, do
4 they not give -- they give no more approvals to
5 facilities like this combined-cycle turbine because
6 they are not able to qualify under the now mandatory
7 component to heat rate; isn't that correct?

8 A. A new project could not qualify,
9 that's correct.

10 Q. Isn't there then a fundamental
11 conflict here in your guidelines? On the one hand only
12 proposals that can't be dispatched by Hydro will be
13 taken on as new proposals by Ontario Hydro; and the
14 ones that in fact could be used or dispatched at peak
15 periods don't qualify?

16 A. No. Under B(2), we talk about
17 proponents with existing contracts.

18 Q. Correct.

19 A. And so therefore people with existing
20 contracts, such as the major supply NUG, can in fact
21 provide us with dispatch if they wanted to.

22 Q. But no new ones, that was my
23 question?

24 A. No new ones because currently there
25 is no requirement for additional megawatts associated

1 with major supply NUGs because of the system
2 integration requirements.

3 Q. So at the present time it is like a
4 moratorium then on new supply, mayor supply NUGs?

5 A. I don't think it is necessarily a
6 moratorium. What we are saying is that the only type
7 of projects we are trying to in fact accommodate now
8 are those that are high-efficiency cogen or those that
9 are renewable.

10 Q. Wouldn't you agree, Mr. Vyrostko,
11 that today is a very good time to go into
12 combined-cycle turbines due to the price of gas and the
13 long-term contracts available to them?

14 A. If we just look at the cost of
15 natural gas, today is a good time to in fact purchase
16 natural gas.

17 Q. All right. And by not accepting
18 these proposals today while the market is good, are we
19 not risking the long-term benefits of independent
20 power?

21 A. I guess there is a trade-off there
22 and the trade-off is do we in fact purchase generation
23 just for the sake of purchasing generation whether we
24 need it or not. And I think that's a very important
25 element in the whole concept of integrating the system.

1 And so I think if we have a need for
2 additional generation, then I think to go after good
3 priced natural gas-fired projects is appropriate. If
4 there isn't a need, then I think there is no rationale
5 to go after those.

6 Q. There isn't a need in the short term
7 but there may be in the long term; correct?

8 A. Again depends on what the requirement
9 is in the long term, yes.

10 Q. And have you studied how this new
11 policy will affect long-term availability of
12 independent power in 5 years, 10 years, 15 years down
13 the road?

14 A. Our forecast tries to anticipate and
15 deal with what we expect over the, at least over the
16 next 10 years with respect to non-utility generation.

17 Q. But have you studied how this may
18 affect independent power down the road, how this
19 decision today, may affect independent power and
20 availability of independent power in 10, 15 years?

21 A. I think one of the things that we
22 have done is we have studied some of the experiences in
23 the United States. And our open solicitation process
24 has substantiated the information we have received from
25 the United States, and that is that the non-utility

1 generation industry is an industry that is capable of
2 providing the needed electricity within approximately a
3 4- or 5-year time frame to when it is required.

4 In most cases in the United States, when
5 they have identified a need for electricity, they would
6 then go out and ask the independent industry to provide
7 that electricity. And then once they receive that
8 electricity, they would close down their business and
9 not do any more private generation until such time as
10 another need arose.

11 And we could have done that because in
12 essence we don't have the need any more. But we chose
13 not to do that because we feel that high-efficiency
14 cogeneration and renewables is important to the system
15 here in total, and so even though we don't have a
16 significant need over the long term, we want to
17 continue to have our business open and so we have said
18 we will continue to have our business open in those
19 areas that are very important to us from an overall
20 concept.

21 And so, the point here is that we would
22 only go after and all jurisdictions typically only go
23 after independent power when it's required, and so
24 therefore that's what we have tried to do.

25 Q. Just on that. You said - maybe you

1 were mistaken - but there is a need over the long term,
2 you said there was no need over the long term. There
3 is a need over the long term; correct?

4 MR. SNELSON: A. We expect a need over
5 the length term but not in the next approximately 10
6 years.

7 Q. Thank you for that clarification.

8 If you could turn to page, I think it is
9 under "New Guidelines for Non-Utility Generation
10 Proposals over 5 Megawatts", the first page of that.
11 And we just were speaking about B, paragraph B, part
12 (2).

13 MR. VYROSTKO: A. That's correct.

14 Q. All right. Does this paragraph B(2),
15 does this now propose a new set of decision criteria
16 unlike the present use of avoided costs?

17 A. I don't believe so.

18 Q. Well, in the past the avoided cost
19 number and calculation of Ontario Hydro were known to
20 the proponent and the vendor; correct?

21 A. Not for site specific projects, no.

22 Q. But generally, maybe not site
23 specific, but they were known, your avoided costs were
24 published?

25 A. There is a generic information that

1 we provide to proponents, yes.

2 Q. Now with this new method, the
3 proponent will have no basis upon which to check
4 Ontario Hydro's estimate of the value of
5 dispatchability, will they? Or will Ontario Hydro in
6 fact also publish this detailed formula with all the
7 co-efficients?

8 A. I think one of the issues that was
9 identified in pages 1 and 2 as an overall issue to
10 developing these guidelines is that we have to look at
11 dispatch both from Hydro's perspective, and that is
12 what dispatch can provide to us, and the capability of
13 the private sector to bring that together.

14 We don't have all of the answers yet, and
15 that's part of working through these guidelines and
16 working with proponents on them. We are hoping to be
17 able to clarify these things over time as we work with
18 proponents on these projects.

19 Q. So can I take that then as a yes that
20 they don't have these -- no longer is it a consistent
21 and existing arrangement where they know the avoided
22 cost. There are new factors now involved that may not
23 be as readily apparent to the proponent?

24 A. I would think that some of the
25 elements of dispatch we haven't been able to conclude

1 yet and so therefore there would be some information
2 that is not yet finalized.

3 Q. And finally, my last issue is on page
4 No. 4. Actually it is page 4 of the guidelines, "The
5 Determination of Project-Specific Avoided Cost" and
6 that sample of illustrative rates, page 4, paragraph 6,
7 under the "Efficiency Adder Application Guidelines".
8 Do you have that Mr. Vyrostko?

9 A. I do.

10 Q. And it reads:

11 "Only non-renewable fuel is included
12 since renewable fuel qualifies for the
13 efficiency adder in its own right."

14 Correct?

15 A. That's correct.

16 Q. Now is this policy there because all
17 that we care about here is about the CO(2) emissions
18 and not about the efficiency of the project itself?
19 [12:57 p.m.]

20 A. I don't believe that that clause is
21 in there just because of the CO(2) requirement.

22 Q. But we are not rewarding renewables
23 for being efficient; is that correct?

24 A. We already recognize renewables for
25 being efficient through the paying of the efficiency

1 adder.

2 Q. So efficiency then is measured in
3 CO(2) emissions, for example?

4 MR. BROWN: A. Certain technologies and
5 renewables such as wood waste or MSW may not be any
6 different in terms of CO(2), and it could even be less
7 efficient.

8 Our guideline is, for cogeneration we use
9 the efficiency cut-off, no matter what the fuel is, but
10 if it is a renewable fuel it gets the full 10 per cent
11 no matter what the efficiency of the conversion process
12 on the environmental emissions.

13 MR. MATTSON: Thank you.

14 Those are all my questions. Mr.
15 Chairman.

16 THE CHAIRMAN: Thank you, Mr. Mattson.

17 DR. CONNELL: With respect to a
18 dispatchable proposal, I take it there is no difficulty
19 in ascertaining the avoided cost?

20 MR. SNELSON: If you can predict the
21 variation of avoided cost over time, and we have a
22 prediction of that, and if you assume an operating
23 pattern for the dispatchable generator, there is no
24 difficulty in assessing the avoided cost.

25 The difficulty comes in in terms of

1 dispatchable generation being relied upon to respond to
2 not only the predicted system conditions, but also all
3 those variations from predicted conditions that will
4 certainly occur in the future, high loads under cold
5 weather, low loads under mild weather, the effect of
6 recessions and boom periods and so on, that you rely
7 upon in the dispatchable generation to be able to be
8 moved to respond to those changes.

9 And so, the problem of fully assessing
10 the value of dispatchable power or the lack of value of
11 non-dispatchable power is quite difficult, but the
12 first order estimate is straightforward.

13 So, the estimate of the value of
14 dispatchability, if the future is as you predict it to
15 be and if the plant operates as you predict it to
16 operate, that is straightforward. It's the assessment
17 of its value in the circumstances that you haven't
18 predicted that is awkward.

19 DR. CONNELL: But your elaboration of
20 policy, it is not leading you in the direction of
21 violation of the avoided cost principle, I take it.

22 MR. SNELSON: With respect to?

23 DR. CONNELL: To dispatchable proposals.

24 MR. SNELSON: I believe that we would try
25 to be consistent with the avoided cost principle.

1 DR. CONNELL: Thank you.

2 THE CHAIRMAN: Mr. Mattson, do you have
3 any further questions?

4 MR. MATTSON: No, Mr. Chairman. Thank
5 you.

6 THE CHAIRMAN: We will adjourn now until
7 2:30. At 2:30 Dofasco is the next examiner.

8 THE REGISTRAR: The hearing will adjourn
9 until 2:30.

10 ---Luncheon recess at 1:03 p.m.

11 ---On resuming at 2:45 p.m.

12 THE REGISTRAR: Please come to order.
13 This hearing is again in session.

14 THE CHAIRMAN: I apologize for the delay
15 in starting this afternoon. It was entirely due to my
16 absence.

17 Mr. Bader?

18 MR. BADER: Yes, thank you, Mr. Chairman.

19 CROSS-EXAMINATION BY MR. BADER:

20 Q. Members of the panel, before I begin
21 what I would like to do is I would like to give you
22 some facts with respect to my client. I represent
23 Dofasco. Some of these facts I am going to give you,
24 you may have some independent knowledge of. If you do
25 that is all the better, if you don't I would just ask

1 you to take them from me as certain facts, and based
2 upon those there will be some questions I will be
3 putting to you.

4 First of all, I don't know whether you
5 are aware of the fact that my client, Dofasco, is
6 located in the City of Hamilton, on the south side of
7 Hamilton Harbour, and that it is in the steel business,
8 it produces approximately 4 million tonnes of a year.
9 It's a continuous operation, by that I mean that it
10 operates 24 hours a day, seven days a week, 365 days a
11 year.

12 I would ask you to take from me that it
13 produces no electric power on its own; however, it's
14 one of the larger users of electric power in Ontario
15 and buys all its electricity from Hamilton Hydro.

16 I would also ask you to take from me that
17 it also produces approximately 1 million pounds of
18 steam per hour on a continuous basis, by that I mean 24
19 hours a day, seven days a week, 365 days a year. This
20 steam is produced by burning by-product fuels,
21 supplemented by a small amount of purchase fuels.

22 I will just stop there now.

23 I will ask you that given the fact that
24 my client, Dofasco, is a major user of energy and does
25 produce a substantial amount of steam, was it

1 identified as a potential site or a candidate for
2 cogeneration installation in any of your reports?

3 MR. BROWN: A. We don't name site by
4 sites. But it is, since you are here, it is included
5 in our list of potential sites.

6 Q. And if Dofasco was to generate
7 electric power to meet its own needs, according to my
8 understanding of the Demand/Supply Plan, it would be
9 considered a low displacement non-utility generator; is
10 that correct?

11 A. That's correct.

12 Q. And that would be the case even if it
13 were to supply an over-capacity to Hydro on an at will
14 basis, my understanding is it will still be considered
15 a load displacements NUG?

16 A. Unless you could guarantee when the
17 surplus was available, on a 24-hour basis and were
18 willing to sign a long-term contract, then you would be
19 a purchase and load displacement at the statement time.
20 Normally, it would be load displacement plus occasional
21 at will sales.

22 Q. Right. Is the proper description of
23 that a load displacement NUG?

24 A. That's correct.

25 Q. Now, up to this point I understand -

1 by that I mean up to this point in terms of
2 cross-examinations by other parties - a good deal of
3 that cross-examination has addressed the issue of a
4 purchase NUG, and in particular the policies and the
5 practices and guidelines associated with the
6 development of purchase NUGs. Am I correct in my
7 understanding of how the cross-examination has gone
8 with this panel, that is directed towards purchase
9 NUGs?

10 A. No, there has been indications for
11 load displacement in terms of our financial assistance
12 program.

13 Q. Now, just so that we are clear, all
14 my questions though are going to be directed to the
15 policies, practices and guidelines with respect to load
16 displacement NUGs.

17 I guess the first question is whether or
18 not the practices, policies and guidelines with respect
19 to the load displacements NUGs are different than those
20 for purchase NUGs?

21 MR. VYROSTKO: A. In general they are
22 not different between load displacement and purchase
23 NUGs.

24 Q. Now, I take it, or at least it's my
25 understanding that the NUG division's goal is to

1 maximize economic non-utility generation in Ontario; is
2 that correct?

3 A. That's generally correct, yes.

4 Q. And I understand that during the
5 course of giving evidence, and I believe I heard it
6 this morning again, economic has been defined as pay up
7 to the avoided cost?

8 A. Yes, economic is that which falls
9 within our avoided costs, that's correct.

10 Q. Does that definition, just so I am
11 correct in my understanding, does that definition apply
12 only to a purchase NUG or does it also apply to a load
13 displacement NUG?

14 A. Just as I previously explained, that
15 most of our policies are the same whether it's
16 purchased or load displacement, and therefore avoided
17 cost of a project would be the same whether it's load
18 displacement or purchased.

19 Q. When you say that your goal is to
20 maximize economic non-utility generation in Ontario,
21 just so that I understand, economic to whom are we
22 talking about? Are you talking about economic to
23 Hydro, economic to the Province of Ontario, economic to
24 the proponents?

25 A. Generally economic is to Ontario

1 Hydro and the ratepayers.

2 Q. Now, if my client, Dofasco, were to
3 cogenerate and become a load displacement NUG, given
4 its size as one of your customers, would that be
5 economic to Ontario Hydro?

6 A. I don't know that. We would have to
7 look at a specific project with respect to its
8 characteristics to determine whether in fact it's
9 economic or not.

10 Q. Well, let me just ask you the very
11 simple question: The loss of a customer the size of
12 Dofasco, is that in Hydro's best economic interests?

13 A. No, it is not.

14 THE CHAIRMAN: Just so I am clear, the
15 avoided cost payment, there will be deducted from that
16 the revenue lost by Ontario Hydro if Dofasco took this
17 step?

18 MR. VYROSTKO: For a load displacement
19 project, that's correct.

20 MR. BADER: Q. I take it by that, would
21 that be negative? Negative impact to Ontario Hydro?
22 Would your avoided cost would be less than the revenue
23 generated from sales to Dofasco?

24 MR. VYROSTKO: A. That could happen.

25 Q. Now, can you help me here, I

1 understand that there is such a thing as has been
2 referred to as a preferred purchase NUG, is there such
3 a thing as a preferred load displacement NUG as well?

4 MR. VYROSTKO: A. Again that's correct.
5 Both purchase or load displacement we generally treat
6 the same, so therefore, for a cogenerator whether he is
7 purchase or load displacement, we would be looking for
8 those preferred or high-efficiency cogenerators.

9 Q. And with the preferences, do I take
10 it there are certain benefits that come to, in this
11 case a load displacement NUG if it's preferred, there
12 are certain preferences or benefits that it may get
13 from Hydro?

14 A. We try to recognize those programs or
15 technologies that have general benefits to the system
16 as a whole, and the system I mean to the entire
17 province, and many of our ratepayers and our customers
18 have told us that renewable generators and
19 high-efficiency cogenerators are in fact a preferred
20 options because of the values they bring. So
21 therefore, whether it's load displacement or purchase,
22 but a high-efficiency cogenerator would be preferred
23 opportunity.

24 Q. And with those preferences comes
25 certain potential benefits from Hydro, is my

1 understanding correct?

2 A. Yes, we would in fact pay up to 10
3 per cent in the old standard, in fact we would still
4 pay up to 10 per cent.

5 Q. Now, to be able to be a preferred
6 load displacement NUG, it's my understanding that there
7 are certain criteria that you have to meet established
8 by Hydro; am I correct?

9 A. That's correct.

10 Q. And I heard this morning, and again
11 you said it, there are at least two of them: The issue
12 of efficiency and dependency on non-renewable
13 resources, those are some of the criteria, those are
14 two criteria, and the extent to which you are
15 energy-efficient and the extent to which you depend on
16 non-renewable resources are part of the equation?

17 A. In terms of how non-renewable fuels
18 reflect into the heat rate per kilowatthour, that's
19 correct.

20 Q. Now, my understanding is there is
21 actually a third criteria that was not mentioned
22 earlier on today - I am certain it's been mentioned
23 before - it's called location, am I correct? In other
24 words, where your located may depend on whether or not
25 you will be recognized as a preferred load displacement

1 NUG?

2 A. Just maybe change the semantics
3 around a little bit.

4 To qualify as a project would require the
5 two that you talked about. Whether we can accommodate
6 the project would be the third, and that is where there
7 is adequate transmission capability. But to qualify as
8 a project itself, it is just the first two.

9 Q. Well, the first two, if I can meet
10 your first two criteria but I am not located in a
11 preferred location, can I be a proponent for a load
12 displacement NUG?

13 A. If in fact you have found a location
14 that we couldn't accommodate, we couldn't accept you on
15 to the system, but you would still have a qualified
16 project in terms of meeting the necessary elements to
17 qualify as a project.

18 Q. For example, let's be very specific
19 here. I mentioned to you Dofasco is located in
20 Hamilton. Is that a preferred location?

21 MR. SNELSON: A. From a long-term
22 perspective, Hamilton is generally a load centre with
23 more load than generation, and so from a sort of
24 regional distribution point of view, it's a preferred
25 location.

1 It does, I believe, lie within the area
2 that is somewhat constrained at the moment by
3 southwestern Ontario transmission limits. Now, whether
4 in fact Hamilton would be affected or not, I am not
5 quite sure, because Hamilton is very close to the line.

6 So, just whether that is a problem for
7 the major transmission concerns generally south and
8 west of Toronto, and the Toronto area, I am not quite
9 sure, but you are close to that line.

10 [3:00 p.m.]

11 Q. Let me just back up for a moment,
12 just with respect to my understanding. As a load
13 displacement NUG, it is my intention to get off your
14 system and become a self-generator of electrical power;
15 is that correct?

16 MR. VYROSTKO: A. That's correct.

17 Q. Now there is nothing in any of your
18 guidelines, correct me if I'm am wrong, that says that
19 I can't become a load displacement NUG?

20 A. That's correct.

21 Q. However, in order to obtain any
22 financial assistance or back-up from Hydro, I have to
23 meet certain criteria. Is my understanding correct?

24 A. To take advantage of the programs
25 that we have, yes.

1 Q. And two of the programs, one would be
2 a number of programs dealing with financial assistance?

3 A. That's correct.

4 Q. And the other one would be back-up of
5 Hydro service if I need your service to supply
6 electrical power?

7 THE CHAIRMAN: You mean in addition to
8 the load displacement; is that what you mean?

9 MR. BADER: Either in addition to load
10 displacement or under the circumstances when my system
11 is down so to speak.

12 THE CHAIRMAN: So that would be in and
13 out. In one case you would be giving out power and the
14 other case you would be taking it in?

15 MR. BADER: I am trying to create the
16 scenario in either case we are producing our own power.
17 We are not selling it; we are using it.

18 The question I want --

19 THE CHAIRMAN: But when your system is
20 down then you have got to get it from somewhere else?

21 MR. BADER: That's correct. And the
22 system I want to get it from is Hydro. That's the
23 other criterion.

24 MR. VYROSTKO: I don't think that you in
25 fact have to take advantage of our programs or sign a

1 contract with us on the NUG side of the business to get
2 back-up.

3 MR. BADER: Q. But I am going to have to
4 meet certain standards in terms of efficiency in order
5 to get back-up; am I correct?

6 MR. VYROSTKO: A. I believe the back-up
7 issue is a separate issue with respect to a load
8 displacement project. We have a number of traditional
9 generators who have in fact put in load displacement
10 projects on their own because of the values that those
11 projects add to them. And they have, as direct
12 customers of Ontario Hydro, contracted for replacement
13 of supplementary power. And to get supplementary
14 replacement doesn't necessarily mean you have to be a
15 NUG or that you have to qualify under the NUG program.

16 Q. Well, perhaps you can help me on
17 this. I would ask you to turn to Exhibit 346, it's the
18 new guidelines for project proposals that were referred
19 to this morning.

20 Now, what I am going to ask you to turn
21 to, if I can, I believe this exhibit appears to be made
22 up of two separate items. It is the first item under
23 the new guidelines and it is after page 2, it's not
24 numbered on my copy, which obviously will be page 3,
25 and the heading is "New Guidelines For Non-Utility

1 Generation Proposals Over 5 Megawatts".

2 A. Yes.

3 Q. And I would direct you to paragraph
4 (a) which says:

5 All proposed projects must utilize
6 renewable resources and/or
7 high-efficiency cogeneration and be able
8 to qualify for at least a 9 per cent
9 component to efficiency adder.

10 My question to you is: Does that
11 translate into any btu's per kilowatthour?

12 A. Yes, it does.

13 Q. And what is that figure?

14 A. Approximately 6,600 btu per
15 kilowatthour.

16 Q. 6,600 btu's per kilowatthour?

17 A. That's correct.

18 Q. And is it my understanding that
19 unless I meet that rate, that is 6,600 btu's per
20 kilowatthour, as a load displacement NUG, unless I meet
21 that or I am under that, I am not entitled to back-up
22 of your hydro; is that correct?

23 A. That's not correct. What these
24 guidelines are doing and our program is doing is trying
25 to deal with the NUG proponent who wants to take

1 advantage of the programs that we have to offer. And
2 so therefore if you want to in fact get purchase rates
3 or financial assistance or any of the programs that we
4 have, then to qualify as a project you have to meet
5 these.

6 If you are an existing customer of the
7 utility system in Ontario and if you see it's in your
8 best interests to go and put in a load displacement
9 projects and it is based on your own economics and your
10 own rationale, you have all the rights in the world to
11 do that and you don't have to sign a contract with
12 Hydro. These guidelines do not apply to that at all.

13 Secondly, most of our large customers,
14 because in fact we supply them, have access to back-up
15 power as is the normal responsibility of a utility and
16 so therefore back-up would be available to you as a
17 normal ongoing customer. So that's a separate deal in
18 terms of your decision to go with load displacement
19 because you want to and it makes sense for you, as
20 opposed to wanting to come to us and take advantage of
21 the programs we have to in fact put in a NUG.

22 Q. So that number 6,600 btu per
23 kilowatthour may determine whether I qualify for your
24 projects; is that what you are saying?

25 A. If you want to take advantage of our

1 programs--

2 Q. Right, your programs.

3 A. --then you would have to meet this.
4 If you want to do your project by yourself because it
5 is in your best interests to do and you don't want to
6 take advantage of any of our programs, then in fact
7 those qualifications don't apply.

8 THE CHAIRMAN: Just so I understand, your
9 programs will not be available to a load displacement
10 NUG from here on in unless they meet the criteria, is
11 that right, of the 6,600?

12 MR. VYROSTKO: No.

13 THE CHAIRMAN: Will you give an incentive
14 to load displacement for load displacement facilities
15 that don't meet the high-efficiency criteria?

16 MR. VYROSTKO: We will not have any of
17 our programs, that is, incentives or assistance to any
18 project, load displacement project, that does not meet
19 these criteria.

20 THE CHAIRMAN: Okay.

21 MR. BADER: Q. Just so I'm clear. With
22 respect to back-up power, even if I don't meet that
23 6,600 number, assume I am over that number, I can still
24 contract with you and you will be obliged to supply me
25 with back-up power on the occasions on which I have

1 need for it.

2 MR. VYROSTKO: A. We are now getting
3 rather specific here I think because you are dealing
4 specifically with your situation.

5 Q. No, I want to go back to the -- I
6 assume that number 6,600 btu's per kilowatthour applies
7 to anybody who wants to go on load displacement. It
8 don't supply, I suspect, just to my client, it applies
9 to anybody; is that correct?

10 A. I guess I wasn't referring to that
11 guideline as the back-up. You are supplied by Hamilton
12 Hydro, so Hamilton Hydro, I assume has some policy with
13 regard to back-up, and so therefore as a customer of
14 that utility, you would have then access to whatever
15 back-up that they have agreed with you as a customer
16 and these guidelines shouldn't change that.

17 THE CHAIRMAN: Anyone who wants to can go
18 on load displacement at their own whim; it's only that
19 they have to meet the criteria if they want some
20 assistance from you?

21 MR. VYROSTKO: That's correct.

22 MS. PATTERSON: Can they also sell if
23 they have surplus capacity?

24 MR. VYROSTKO: Sell to the utility?

25 MS. PATTERSON: Yes.

1 MR. VYROSTKO: No, that's a program.
2 When they sell to us, that's now us paying for and
3 buying that; that now becomes our program; therefore
4 now they do have to qualify.

5 MS. PATTERSON: Even if they will just
6 take whatever you offer them because it is a surplus
7 and it doesn't matter to them whether it's economic or
8 not?

9 MR. VYROSTKO: And that is, I think as
10 Mr. Brown talked about, the "at will" or "the
11 occasional". There is no contract with us and it just
12 becomes as it's available they may want to sell at
13 whatever rate there is, yes.

14 MR. BADER: Q. Now, with respect to the
15 other incentives, the financial incentives, that are
16 available to a load displacement NUG, I understand that
17 a preferred NUG may qualify for a 10 per cent adder
18 which I believe you refer to as a premium payment. Is
19 my understanding correct?

20 MR. VYROSTKO: A. A high-efficiency
21 cogenerator would qualify for either a 9 or 10 per cent
22 adder depending on whether they in fact get down to the
23 6,000 btu per kilowatthour.

24 Q. From what I understood you said
25 before, that would apply whether you are a purchase NUG

1 or a load displacement NUG?

2 A. Yes, that's correct.

3 Q. If I may purchase NUG, I take it I
4 see the premium in terms of payments made by Hydro?

5 A. You would see that in the rates that
6 we would be paying for the electricity you sell to us.

7 Q. If I am a load displacement NUG, how
8 do I see it?

9 A. You would see that through one of the
10 financial assistance options that you would have asked
11 for when contracting with us.

12 Q. Would that mean in terms of, for
13 example, a lower interest rate if that was one of the
14 things I was looking for?

15 A. Yes, that's a possibility, yes.

16 Q. Now, with respect to the financial
17 assistance, other than meeting these 6,600 btu's per
18 kilowatthour or under in order to be eligible, are
19 there other criteria that you have to meet?

20 MR. BROWN: A. Yes, there are.

21 Q. Could you perhaps direct me to where
22 I would find these.

23 A. In Interrogatory 5.4.3, which is in
24 your attached material, the financial assistance
25 program is attached to that interrogatory.

1 THE REGISTRAR: 5.4.3 is 321.64.

2 MR. BROWN: If I direct you to section
3 5.2. It provides the general requirements for the
4 program. And 5.4 as well.

5 MR. BADER: Q. At 5.4, under the
6 qualification process, which I see at page 6, listed as
7 one of the major factors is location. I take it that's
8 where the proponent is located?

9 MR. BROWN: A. That's correct.

10 Q. And if I am not in a preferred
11 location, I take it I am not going to get -- there is a
12 good chance I may not get the assistance that I want?

13 A. That's correct.

14 Q. So that while I may meet other
15 criteria in terms of efficiency, if I don't meet a
16 preferred location or am not located in a preferred
17 location, to Hydro, I am not eligible for some of these
18 benefits, I take it?

19 A. I think this is the third point you
20 were alluding to earlier which is the transmission
21 constraints.

22 Q. And that's transmission problem, is
23 that correct, is that because of a transmission problem
24 for Hydro?

25 A. That's right.

1 Q. So as long as I happen to be located
2 in a non-preferred area until some time as Hydro solves
3 its transmission problems, I am not going to be
4 eligible for some of these benefits as a load
5 displacement NUG. I can go on my own. You can't
6 prohibit me from going on my own. It is just that I
7 may not be eligible or I will not be eligible for
8 certain of your benefits?

9 A. That's correct.

10 Q. If I am a load displacement NUG and
11 am located in a preferred location --

12 THE CHAIRMAN: I just want to make sure
13 what you mean when you say you are a load displacement
14 NUG because you have described a load displacement NUG
15 as a NUG that meets its own energy needs but also has
16 surplus needs which it wants to put onto the system and
17 may need back-up. Is that what you mean when you are
18 talking about a load displacement NUG?

19 MR. BADER: No, let me be more specific.
20 I will use the example of a load displacement NUG which
21 generates only its own power needs.

22 THE CHAIRMAN: And doesn't seek to
23 dispose of its surplus?

24 MR. BADER: That's correct. But may have
25 need of back-up from Hydro on those occasions when it's

1 necessary.

2 THE CHAIRMAN: I am not sure why in that
3 scenario transmission would be a factor.

4 MR. BROWN: Without the generation, all
5 transmission lines were loaded, assuming the customer's
6 load was involved in the scenario, and we add a
7 generation, whether it was load displacement or
8 purchases, is adding excess into an area that is
9 already full; and whether it's load displacement or
10 purchased it's still adding a generation into that
11 system and the power has to come out the transmission
12 interface and would cause it to go higher.

13 It is essentially instead of selling
14 power to the customer, there is another area of the
15 province that now has an excess that has to be pushed
16 out of the system.

17 If we are adding a brand new customer
18 that was self-sufficient it would not have an impact on
19 the transmission system, but this is an existing
20 customer.

21 MR. BADER: Q. I'm sorry, I don't
22 understand the distinction where you are adding a brand
23 new customer or taking a customer off the line, how
24 that impacts on your transmission problems in one case
25 and not in the other.

1 MR. BROWN: A. If you think of it
2 electrically, you are not doing anything different
3 whether it's purchase or load displacement. You are
4 adding more generation into the system. And as soon as
5 you add more generation into a system that is already
6 exceeding its limits you have to go higher. It doesn't
7 matter if its purchase or load displacement. It just
8 the laws of electricity.

9 Q. But I thought you suggested that if
10 it was a new customer --

11 A. A new customer is also adding load
12 and generation at the same time and those two offset
13 each other and there would be no net difference.

14 Q. In other words, let me see if I can
15 simplify it. If I wanted to go off line but I brought
16 to you a new customers who would be standing in my
17 shoes and producing the power that I don't now need
18 from Hydro, that would be fine, that would be okay?

19 A. That's correct.

20 Q. I would be finding for you a
21 replacement.

22 A. Yes.

23 [3:20 p.m.]

24 Q. Well, if I go off your system, why
25 don't you just generate that much less power? You

1 don't need to feed me and if you don't have another
2 consumer to stand in my shoes - I don't mean to be
3 facetious, let me just be simple - turn it down. Why
4 can't that happen?

5 A. That can happen. On a system-wide
6 basis the transmission problems we have are
7 inter-regional problems.

8 And you are exactly right, when you get
9 off the line we will have to back down somewhere else,
10 it may not be the spot we would like to backdown. We
11 like to backdown the most expensive generation that's
12 on the line, and because of transmission limits we may
13 have to alter that decision and that will cost us
14 money.

15 You have to consider the system as
16 Ontario needs, and you're right, we just have to
17 backdown. Then you also have to look at the
18 inter-provincial need, which is where we get into the
19 transmission problems, and that's not simply
20 backing-down.

21 MS. PATTERSON: Maybe I could just ask
22 another question here. Hamilton you said was a
23 preferred location because it has greater load than
24 generation, and because of that wouldn't it be an
25 advantage if Dofasco went off or no longer needed

1 supply?

2 MR. SNELSON: Well, I think we have
3 talked about two different scales of transmission
4 considerations. There is the scale of, say, an
5 individual town or city, and clearly as regards that
6 particular city, then if you reduce the load or
7 increase the generation in an area that has more load
8 than generation, then you reduce the requirements to
9 bring power into that city.

10 We are also looking at a bigger scale,
11 which is sort of regions of the province. And it's
12 quite possible that a NUG be in a city that is
13 deficient in power and doesn't have enough generation,
14 but be within a region that has more than enough
15 generation. And so you can have situations where the
16 local considerations and the regional considerations in
17 fact go in opposite directions. I believe that the
18 eventually these things get corrected with transmission
19 additions and so on.

20 But during 1990s southwestern Ontario is
21 forecast to be an area with barely enough transmission,
22 largely because in the transmission route stage
23 hearings for the improvement of the southwestern
24 Ontario transmission system, we got approval for a
25 lesser alternative than the one we sought.

1 MR. BADER: Q. So I guess it comes down
2 to the fact that because I may not be in a proper area
3 or an area that would allow me to go off-line, I can go
4 off-line if I want to, but this is not a preferred
5 location to Hydro, whether it's my interests or not,
6 it's simply not a preferred location to Hydro?

7 MR. SNELSON: A. Clearly, if you reduce
8 your electrical load or completely eliminate it, then
9 that is something that is your business and something
10 that we have to accommodate.

11 We do recognize that in an area that has
12 a surplus of generation, either a reduction in load for
13 any reason or an increase in generation for any reason,
14 can further exacerbate that lack of balance. So,
15 that's just the way it happens.

16 Q. So the system is in balance,
17 especially, as you mentioned, with respect to
18 southwestern Ontario, is there any plan over the next
19 foreseeable future to in fact address that problem?

20 A. Well, we have just finished a
21 southwestern Ontario plan exercise which is what I was
22 referring to.

23 Q. That doesn't seem to me that it
24 solved the problem.

25 A. It solved the problem for the things

1 that it was designed to do but only just. And it did
2 not provide the facilities, the full facilities that
3 Ontario Hydro requested. As things have come about,
4 then we see the situation being tight. It's not
5 impossible but it's tight and it can't accept a lot
6 more change in the direction of increasing generation
7 or reducing load in that general southwestern Ontario
8 area.

9 I can go that far, beyond that if you
10 want to question it further, you will have to ask the
11 transmission witnesses on Panel 7.

12 Q. I wonder if you would agree with me
13 that the cost to a load displacement NUG of back-up
14 power must be such not to discourage the development of
15 load displacement NUGs?

16 MR. VYROSTKO: A. I think the cost of
17 back-up to any load displacement NUG has to be an
18 important decision when looking at the economics of the
19 project and going forward with that project.

20 Q. Well, it certainly is an important
21 consideration, for example, to someone like my client,
22 if my client is looking at it. What I am asking you
23 is, in order to make it economically feasible, wouldn't
24 you agree that whatever savings a proponent could
25 realize by developing its own electric power could be

1 lost if the costs of back-up or stand-by power ate that
2 up or exceeded that? It would discourage a proponent,
3 would it not?

4 A. I think on the one side it would
5 discourage the proponent because of that element.

6 I guess from the other side, I would see
7 the concern that if the proponent isn't aware of and
8 recognizes the value of back-up, and depending on how
9 far and how much value he gets for the power without
10 the consideration of back-up, then the other people,
11 that is the rest of the system who could be paying,
12 let's say, full avoided cost for the project, now also
13 on top of that they have to provide back-up, then in
14 fact that developer is now getting additional
15 facilities because back-up has been provided. So there
16 really has to be a balance of the understanding and the
17 economics of the entire deal.

18 The value that the utility gets in
19 negotiating with a developer to buy electricity, and/or
20 to provide assistance to the developer, and all of the
21 other fringe benefits that the developer would be
22 looking for, like back-up, and at the same time what is
23 the cost to the developer of putting in a project that
24 in fact brings them value but at the same time imposes
25 these pressures on the system in terms of back-up. So,

1 I think that there a balance there between how far
2 back-up and the cost of back-up goes for either side of
3 the party.

4 Q. Well, I guess what I am trying to get
5 at is, if your policy is to maximize the development of
6 load displacement NUGs, then that policy could be for
7 torpedoed, so to speak, if you were to structure your
8 back-up costs in such away as it become punitive?

9 A. That could happen, that's correct.

10 Q. What do you presently do for load
11 displacement NUGs who have need of back-up power?

12 A. I think I already mentioned that we
13 offer two types of back-up power: replacement power,
14 and supplementary power that is available to a
15 customer. And those two, by the way, are referred to
16 in Interrogatory 5.9.74.

17 Q. Well, in addition to making available
18 replacement and supplementary power, I understand - and
19 correct me if I am wrong - that the system already has
20 a 24 per cent reserve?

21 MR. SNELSON: A. We plan to maintain a
22 24 per cent reserve. It varies year to year above and
23 below that value.

24 THE REGISTRAR: Interrogatory 5.9.74 is
25 321.66.

1 ---EXHIBIT NO. 321.66: Interrogatory No. 5.9.74.

2 MR. BADER: Q. You may have answered
3 this, and I apologize if I am repeating myself here,
4 but do you look to any of that present reserve to
5 supplement or replace back-up power for those load
6 displacements NUGs who have it or is it somewhere else
7 in the system?

8 MR. SNELSON: A. There are two issues
9 that you have to look at in being able to supply
10 back-up power. One is, do you have enough generation
11 on the system in total, and in that regard, the 24 per
12 cent reserve that we maintain or try to maintain for
13 our general system requirements is considered to be
14 sufficient to meet the back-up requirements that are
15 occasionally required by non-utility generators.

16 The second issue is, is the transmission
17 system capable of delivering it from the generation,
18 wherever that's located, to the actual premises of the
19 customer who needs back-up supply. And depending on
20 how big the customer is and how strong the local system
21 is and whether it was built with that customer in mind
22 and his back-up requirements, then it's not clear that
23 there will always be enough capability to meet back-up
24 requirements unless it's specifically planned for.

25 Q. So again location becomes a key issue

1 in terms of availability of back-up power. Where I am
2 located in the province or in the region is going to
3 depend upon whether or not you have the transmission
4 capabilities to deliver back-up power?

5 A. Certainly transmission capabilities
6 to deliver back-up power depend on where you are
7 located.

8 MS. PATTERSON: Does Hydro routinely
9 refuse to provide back-up power to its customers? Is
10 it generally a problem?

11 MR. VYROSTKO: Generally it's not been a
12 problem.

13 MR. BROWN: I should add, there are two
14 types of back-up power. One is on request, and you
15 have to phone in and ask for it and you could get
16 turned down on a day-by-day basis. And there is
17 another kind, you contract for and you get it whenever
18 you need it. Obviously the rates are different.

19 MR. BADER: Q. Those rates, and you
20 mentioned -- or I understand you to say that the rates
21 on request and rates on need may be different. Are
22 those rates any different than the rates you pay for
23 buying a generator surplus at will? In other words,
24 what you supply and what you buy at where you have a
25 need, are those two rates different?

1 MR. BROWN: A. Are you talking about
2 from a NUG perspective or Ontario Hydro perspective?

3 Q. From Hydro's perspective, the rates
4 that you charge customer for back-up and the rates you
5 pay for a generator surplus, are they the same?

6 A. I think that's a very variable cost.
7 There are times when we may have to go out of outside
8 of Ontario to get that power and that could be very
9 expensive, depending on the time of time of year and
10 what is available at the outside markets. There may be
11 other times when it's readily available.

12 Q. What about from purchase NUGs here in
13 Ontario in terms of any contracts that you have with
14 them? Again, on an at will basis is it based on
15 contract or is it simply based on phoning up someone in
16 Ontario and seeing if they have the capacity that you
17 need?

18 A. NUG contracts do not have the
19 variability in them from purchase. When Ontario Hydro
20 is looking for extra capacity they are going outside of
21 Ontario.

22 Q. Outside of Ontario?

23 A. Yes.

24 Q. Now, let me ask you this question, it
25 deals with this concept we heard this morning about

1 wheeling. If a load displacement NUG uses Hydro's own
2 transmission lines to wheel electricity to its various
3 locations, would it be --

4 THE CHAIRMAN: You are talking its own
5 locations?

6 MR. BADER: Its own locations. It may
7 have a need, though, at various places at its own
8 location.

9 Q. Is it required to sell that
10 electricity to Hydro and then buy it back, or is it
11 simply paying for the use of the transmission lines?

12 MR. VYROSTKO: A. I think the
13 fundamental principle with an arrangement like that
14 would be that they would be paying for the costs of
15 wheeling these facilities across the utility's system.

16 Q. Is that basically a transmission
17 cost, the cost of--

18 A. Yes.

19 Q. Is that all it is, a transmission
20 cost, rather than having to sell it to Hydro and Hydro
21 then selling it back?

22 A. I think the two elements there are
23 that to some extent there has to be the contract, some
24 arrangement whereby the amount of power that's being
25 wheeled has to be agreed to, such that the rate then

1 charged for wheeling would be based on the amount of
2 power that is being wheeled. So there is some element
3 of identifying the amount of megawatts that would have
4 to be wheeled and then the rate for wheeling would be
5 then based on that amount of power that's being
6 wheeled.

7 But I don't think that you necessarily
8 have to wheel to sell to us first, I don't think so.
9 But somehow there has to be an agreement as to how
10 many megawatts are going from the one site to the other
11 site.

12 Q. Okay. Now, in your direct evidence -
13 I probably can give you the cite here in a moment - you
14 had mentioned that it would be difficult for Hydro to
15 own and operate an electrical generating plant within a
16 steam users industrial facility. Do you recall that
17 evidence?

18 A. I do recall it.

19 Q. And as I mentioned to you earlier,
20 Dofasco generates a great deal of steam, and I take it
21 Hydro would not consider establishing or building and
22 operating a generating facility at, for example, my
23 client's facilities?

24 A. At this time I don't think we would
25 consider that, that's correct.

1 Q. When you say "at this time", does
2 that mean at sometime you may consider whether or not
3 that would be an opportunity for Hydro?

4 A. I think what have we have tried to do
5 over the years that we have been in the business is to
6 be flexible with respect to industry requirements as
7 well as utility and ratepayer requirements. And if
8 down the road there was a strong preference shown for
9 Hydro to do something like that, then I think we would
10 have to consider it. But currently there is no
11 suggestion that we do that.

12 Q. I take it something like that where
13 we had a customer the size of my client, that would
14 avoid some of the problems you have in terms of
15 transmission of hydroelectricity around this province;
16 am I correct?

17 A. No, I don't think that would avoid
18 some of the transmission problems, because whether we
19 go in there and build a generating station or whether
20 you do it, the problems of the transmission system
21 would still be there. I would think knowing what the
22 problems with the transmission system are, we wouldn't
23 make that a choice for locating a generating station.

24 Q. Perhaps not just with one customer
25 like Dofasco, but if you identify a number of customers

1 in these regions and went in and built these
2 facilities, would it not overall reduce some of these
3 particular problems you have been talking in terms of
4 transmission? In other words, if you take an area like
5 southwestern Ontario and brought the generator to the
6 site, closer to the site, doesn't that alleviate some
7 problems in terms of moving electricity in Ontario from
8 its various regions and based upon the demands?
9 [3:42 p.m.]

10 MR. SNELSON: A. The particular problems
11 of southwestern Ontario at the moment are more to do
12 with having too much generation in that area rather
13 than having too little. And so adding five load
14 displacement projects in that area instead of one
15 compounds the problem rather than ameliorating it.

16 Q. The difficulty I have with that is
17 that if you bring your power plant closer to the site
18 that has need of it, won't that reduce the problem to
19 Hydro in terms of transmitting problems? In other
20 words, you can then concentrate on moving the
21 electricity through your transmission lines to the
22 areas that they need them?

23 A. I have clearly identified that in,
24 say, the City of Hamilton, if Dofasco were to be
25 generating a large part of its own power, that would

1 reduce the amount of transmission lines that were
2 required from the bulk system to your plant, possibly
3 reduce the transmission requirements through the City
4 of Hamilton in some way. But when you are looking at
5 the bigger region, southwestern Ontario has got a
6 number of large generating plants within that as well
7 as a number of other smaller plants and in total it is
8 an area that has more generation than load at the
9 moment.

10 Q. So something like a chicken and egg
11 problem. Who came first? My client or Hydro in terms
12 of where they put their generating stations? If you
13 didn't put your generating stations in that area, then
14 that wouldn't be a problem of over-capacity.

15 A. I don't like to see transmission as
16 being a problem for all time. It is a problem that has
17 a certain time scale with it. And at the moment we are
18 unlikely to be able to do a great deal to relief these
19 problems in the next 10 years or so.

20 In the long run, it's usually economical
21 to build transmission to do what makes sense from a
22 generation point of view rather than the other way
23 around. So, in the long run these constraints may not
24 be there and in really a strategic sense, then of
25 course you are right that putting generation close to

1 loads is goods from a transmission point of view. But
2 we are talking about time scales that have different
3 layers to them and that can't be remedied in a very
4 rapid time.

5 Q. I guess contrary to the old adage
6 what's good for Dofasco is not necessarily good for
7 Ontario Hydro?

8 A. I thought the adage was about General
9 Motors, but....

10 Q. I am borrowing from them.

11 May I just have a moment, please.

12 If I may just go back to an area I raised
13 before. I apologize for jumping around like this. But
14 when we were discussing this issue of financial
15 assistance as being one of the incentive programs
16 available from Hydro and we talked about criteria, one
17 of the criteria I believe is need. Perhaps I can
18 identify it for you. Yes, going back to the
19 interrogatory that you earlier identified on page 3
20 under 5.1 --

21 THE CHAIRMAN: Could you give the number
22 of the interrogatory please, just for the record.

23 MR. BADER: I'm sorry 5.4.3.

24 THE CHAIRMAN: We have a number for that?

25 THE REGISTRAR: Yes, 321.64.

1 MR. BADER: Q. Under 5.1, financial
2 assistance principles, the last one identified suggests
3 that financial assistance will be offered only to NUGs
4 which demonstrate need. Perhaps you can just clarify
5 what you mean by need.

6 MR. BROWN: A. I guess we are looking
7 for people who really need this kind of assistance
8 rather than just a purchase rates. And the easiest an
9 example to demonstrate needs is load displacement. So
10 if you are on load displacement clearly there is a need
11 for financial assistance because we can't give you a
12 purchase rate.

13 THE CHAIRMAN: I didn't quite follow that
14 thinking. Can you just give it to me again.

15 MR. BROWN: I guess we don't want to hand
16 out financial assistance to everybody so there are
17 certain qualifications that we go through in technical
18 and financial. But another aspect is we want to make
19 sure --

20 THE CHAIRMAN: That would be whether the
21 proponent needs financial assistance in order to put
22 himself in the position to have displaced load.

23 MR. BROWN: Right. I guess this more
24 applies to purchase-type projects than it does to load
25 displacement. Load displacement there is a clear need

1 because that's all we can do is offer financial
2 assistance, there is no purchase rate available.

3 THE CHAIRMAN: I am not suggesting that
4 it's anyone here, but if someone here really had all
5 the money they could possibly need and didn't need any
6 financial assistance in the sense that they could do
7 the project, self-finance the project or finance it
8 through favourable means, would that go into your need
9 criteria?

10 MR. BROWN: I guess our need criteria is
11 based on full avoided costs, so we would be paying up
12 to full avoided cost and that really is not -- we
13 wouldn't look at his need in terms of financing. In
14 terms of our purchase project if he can get financial
15 assistance outside, we would rather just give him a
16 straight purchase rate than a rate plus a low interest
17 loan at the same time.

18 THE CHAIRMAN: You won't give him a
19 purchase rate if he is a load displacer?

20 MR. BROWN: No. And we just give him one
21 of these financial assistance options, so the need is
22 that he is not purchase.

23 THE CHAIRMAN: I think I see it.

24 MR. BROWN: This qualification is more to
25 deal with purchase-type projects than it is load

1 displacement.

2 MR. BADER: Q. I understand the need
3 doesn't necessarily depend upon my balance sheet?

4 MR. BROWN: A. That's correct.

5 THE CHAIRMAN: Do you intend to be much
6 longer?

7 MR. BADER: No, I don't. I don't intend
8 to be very much longer.

9 THE CHAIRMAN: Because we usually take a
10 break around this time.

11 MR. BADER: That's fine. Maybe that
12 would be a good time.

13 THE CHAIRMAN: We'll take a break.

14 MR. BADER: And I will go through my
15 notes again, thank you.

16 THE REGISTRAR: The hearing will recess
17 for 15 minutes.

18 ---Recess at 3:50 p.m.

19 ---On resuming at 4:05 p.m.

20 THE REGISTRAR: This hearing is again in
21 session. Please be seated.

22 THE CHAIRMAN: Mr. Bader.

23 MR. BADER: Thank you.

24 Q. Members of the panel, I just want to
25 revisit one issue. And the reason I want to revisit

1 the issue is because the answer you had given us before
2 was not basically what was -- the information we had
3 been given with respect to eligibility and availability
4 of back-up power was somewhat different in terms of
5 information given to us than what we have heard today,
6 and I am not questioning your veracity about that.

7 But I just want to revisit this issue
8 because you have answered the question about
9 eligibility for back-up power for a load displacement
10 NUG, I just want to go back to the issue of the cost,
11 what the cost would be for that back-up power to a load
12 displacement NUG.

13 Just to clarify it as I say because our
14 information was otherwise, will the cost at all be
15 related to whether or not we are a preferred NUG or in
16 a preferred location? In other words, will you have a
17 structured cost based on those two factors?

18 MR. VYROSTKO: A. The cost of back-up?

19 Q. Yes.

20 A. No. The cost of back-up is a
21 separate cost that's determined by our rate people and
22 that would still be available to you and that cost
23 currently is independent of the project costs of the
24 non-utility generation opportunity.

25 Q. And it is irrespective of whether we

1 are in a preferred location or whether we are a
2 "preferred NUG"? You don't have one rate for a
3 preferred location NUG and another rate for a
4 non-preferred location NUG?

5 A. No --

6 THE CHAIRMAN: You are talking about
7 back-up rate now?

8 MR. BADER: That's right, only back-up
9 rate.

10 MR. VYROSTKO: There is not a different
11 rate between the preferred NUG and a non-preferred NUG.

12 THE CHAIRMAN: Regardless of location
13 for back-up rate.

14 MR. BROWN: Maybe I should just qualify.
15 The rates that we offer on a provincial basis, but
16 there may be a problem in providing the service and
17 that may take some time to correct. So there may be a
18 transmission restriction why we can't provide back-up
19 power, that would be a site-by-site analysis, but
20 providing there is no transmission problem to supply
21 the back-up, the rates themselves are on a provincial
22 basis.

23 THE CHAIRMAN: If this is getting down to
24 a site specific type of issue, it might be better to
25 take it up informally.

1 MR. BADER: I understand what you are
2 saying. I just wanted to establish whether or not
3 there were any structured rates that reflect whether
4 the load displacement NUG is preferred or not
5 preferred. But I heard your answer on that I believe.

6 Q. Now, if I can just take you to page
7 12049 of Volume 67. It's down around line 19. It is a
8 question that was -- sorry, do you have that?

9 MR. VYROSTKO: A. 12049.

10 Q. That's correct. Question beginning
11 around line 19, near the bottom.

12 A. I have that.

13 Q. The question is:

14 "Now, what additional activities are
15 being considered by way of programs in
16 the division for the future?

17 "ANSWER: A. We have the following
18 activities under way: One, to address
19 load displacement concerns about back-up
20 power...."

21 Can I just stop there and ask you what
22 are these programs that you have underway that are
23 addressing load displacement concerns?

24 MR. BROWN: A. I don't know if they call
25 them a program, they are more of an initiative or maybe

1 even a policy. For load displacement we are looking at
2 having a back-up power policy in the NUG division and
3 we are also looking into simultaneous buy/sell which
4 gets rid of the back-up power issues for our own
5 customers and possibly customers of the Municipal
6 Electric Association.

7 Q. Can you at all be any more specific
8 than that.

9 THE CHAIRMAN: You mean customers of the
10 utilities who belong to that association; is that
11 correct?

12 MR. BROWN: That's correct.

13 MR. BADER: Q. Can you be at all any
14 more specific than saying looking at back-up policies?

15 MR. BROWN: A. Not really at this time.
16 We are surveying throughout North America to see the
17 best way to offer back-up power, recognizing that what
18 we have may not be the optimum service for our
19 customers. So we are looking at ways to improve the
20 way we offer back-up power if it can be improved.

21 Q. And will that at all address issues
22 of rates or location?

23 A. Hopefully that should, yes.

24 Q. So I take it is it possible that this
25 policy could in fact create a rate for a preferred

1 location which would be different than a non-preferred
2 location?

3 A. That would definitely have to be
4 factored. I am not sure how the rate is going to
5 change. It makes sense to look at whether the
6 transmission -- or the load displacement or back-up
7 power is going into a preferred location and rates
8 should change according to that. I don't know if
9 that's possible but that's definitely an issue that has
10 to be considered in developing the policy and the
11 rates.

12 Q. So I take it the cost could result in
13 it being somewhat prohibitive for a developer looking
14 at a load displacement NUG.

15 A. We have rates already, as already
16 discussed. This study may find that the rates
17 available now are a bargain and we are charging too
18 less. The contrary is true as well, that maybe we are
19 overcharging and we should be reducing that charge.

20 MR. BADER. Those are all the questions I
21 have thank you.

22 THE CHAIRMAN: Thank you, Mr. Bader.

23 Mr. Goudge, are you next?

24 CROSS-EXAMINATION BY MR. GOUDGE:

25 Q. Mr. Chairman, members of the panel, I

1 have three or four areas only that I want to cover with
2 you. Let me begin with what is really a definitional
3 thing. And as a new kid on the block, forgive me if I
4 till old soil.

5 I have your planned and expected NUG
6 capacity figures that I get from a document called "New
7 Guidelines for Project Proposals Over 5 Megawatts"
8 which is Exhibit 346 I think. You don't need to turn
9 to it, but I want to use that to just get at one
10 definitional thing I am not certain of.

11 It is clear that in your planning process
12 you have identified cogeneration and subdivided it into
13 several compartments and then you have
14 non-cogeneration. And I just want to get at the
15 precise definition you have used for cogeneration,
16 either in your 1990 forecast or in what you have
17 referred to as your accelerated plan.

18 Cogeneration, generally speaking, I
19 understand to be the use of one fuel to produce both
20 electricity and steam generally. That may be too
21 general for you, and if it is could you put a more
22 precise definition in place for me?

23 MR. VYROSTKO: A. I think generally the
24 definition of cogeneration would be that.

25 Q. I think of it simplistically as let's

1 say an industrial plant that is producing steam as part
2 of its industrial process and turns the steam both to
3 that process and to the generation of electricity. Is
4 that an example of cogeneration?

5 A. That is an example, yes.

6 Q. And would fit within your category of
7 cogeneration?

8 A. That's correct.

9 Q. In that example, the generation of
10 electricity is in effect the tail and the use of steam
11 for the industrial process is the dog, fair enough?
12 That is, the steam is produced originally for the
13 industrial process and then gets used to generate
14 electricity?

15 A. That's generally correct, yes.

16 Q. In your category of cogeneration, do
17 you have in place now or do you contemplate
18 circumstances where the tail grows in size and
19 effectively wags the dog, if you know what I mean?
20 That is it is possible to contemplate this process of
21 cogeneration and the production of electricity becoming
22 to some extent economic to the cogenerator and the
23 cogenerator could take off more natural gas, let us
24 say, produce more steam, not increase its use in the
25 industrial process but increase its use for

1 electricity. Is that sort of evolution contemplated in
2 your category of cogeneration?

3 A. That definition or that example has
4 in fact occurred.

5 Q. Where does the line get crossed and
6 something get out of the category of cogeneration and
7 into the other category? I don't know what its label
8 is, but presumably there is another label for it, where
9 the primary purpose of the generator is generation of
10 electricity and not use of steam as a by-product to
11 produce electricity?

12 A. We have basically made that
13 differentiation between -- we term those, two different
14 ones, high-efficiency cogeneration and sort of low
15 efficiency cogeneration.

16 Q. Which is which?

17 A. High-efficiency cogeneration where
18 the steam is a primary product and the electricity that
19 is produced matches basically the steam requirements.

20 Q. So you would categorize a company
21 that increased its production of steam for the sole
22 purpose of expanding its generation facility as a
23 low-efficiency cogenerator; is that what you say?

24 A. Typically, no, we would see the
25 opposite. For a given steam requirement, they would in

1 fact produce more electricity out of that steam and so
2 they would be getting more electricity and therefore
3 they would be a lower efficiency.

4 Q. Your are explaining to me a snapshot.
5 I want to put this on a time continuum. Let's take
6 your high-efficiency steam, your high-efficiency
7 generator, where the steam is producing electricity
8 very efficiently.

9 I want to extrapolate that over time and
10 assume that that same company increases its intake of
11 natural gas in order to produce more steam in order to
12 produce more of the high-efficiency electricity. Do
13 you categorize it differently as its proportion of
14 steam used for electricity increases or do you continue
15 to categorize it as cogeneration.

16 MR. BROWN: A. I think as long as the
17 process is going up in tandem with the electricity,
18 there is still high-efficiency cogeneration.

19 Q. So that if at the end of my
20 hypothetical, and obviously it's only a hypothetical,
21 you had a company that was producing a great deal of
22 steam, most of which was being used for electricity and
23 only a small proportion of which was used for its
24 industrial process, you would still fit that in the
25 category of cogeneration.

1 [4:20 p.m.]

2 That would be cogeneration for your
3 long-term planning process, you would label it that.

4 A. In terms of our long-term plan it
5 would not be included because we don't forecast that
6 type of cogeneration.

7 It is cogeneration, and what we have said
8 is as they are committed, if they do qualify, then we
9 will put them in our plan.

10 Q. You may have none of them in your
11 long-term plan at the moment. I simply wanted to know
12 if you did have, or if one of these things developed,
13 you would put it in that category as opposed to the
14 other category which is the generation of electricity
15 pure and simple?

16 A. That's correct.

17 Q. Okay. Now, let me move from that to
18 a few questions about the basic nature of NUGs.
19 Obviously I can take it their fundamental
20 characteristic is that they are owned by somebody other
21 than Ontario Hydro.

22 MR. VYROSTKO: A. That's correct.

23 Q. In your present constellation of
24 NUGs, and I take it there are some now in-service.

25 A. That's correct.

1 Q. And others committed and others
2 likely, those are the three categories in the exhibit
3 that I referred to earlier in. Let's say in the
4 present category of in-service, without asking you to
5 breach any confidence, and I know that's an issue here,
6 can you give me some sense of the variety of ownerships
7 that exist amongst in-service NUGs?

8 Let me give you one set of alternatives.
9 I take it there are privately-held NUGs, NUGs that are
10 companies privately-held?

11 A. Yes.

12 Q. Are there NUGs that are
13 publicly-traded, where I would go out and buy a share
14 at the Stock Exchange, or do you know that?

15 A. Yes.

16 Q. Are there foreign-owned NUGs where
17 the shares are held abroad?

18 THE CHAIRMAN: Where the ownership is
19 abroad, is that what you mean?

20 MR. GOUDGE: Yes.

21 THE CHAIRMAN: The beneficial ownership
22 is abroad?

23 MR. GOUDGE: Yes.

24 MR. VYROSTKO: No.

25 MR. GOUDGE: Q. They would all be

1 beneficially-owned domestically?

2 MR. VYROSTKO: A. Out of the in-service
3 ones, that's correct?

4 Q. What about the committed ones?

5 If you don't know, say so.

6 A. I believe the committed ones are as
7 well.

8 Q. I take it from your hesitation that
9 the identity of the ownership of the NUGs is not
10 something top on your list, your checklist to evaluate
11 when you get a proposal from a NUG.

12 Do you care who the owner is?

13 A. We care in terms of who the owner is
14 with respect to the capability of that owner to put
15 forward a project, not only at the front end in terms
16 of developing it, but constructing it and then
17 operating it over the long-term.

18 Q. And its financial liability
19 presumably.

20 A. That's correct.

21 Q. Do you care whether it's
22 domestic-owned or foreign-owned?

23 A. Currently we do not.

24 Q. Is that a desirable planning
25 criteria? I take it not from your perspective if you

1 haven't introduced it.

2 A. Currently it's not.

3 Q. It obviously is a possible planning
4 criterion.

5 A. If in fact, for instance,
6 opportunities from Canadian or provincial companies
7 were being discounted because of the amount of
8 investment or activity we are getting from outside of
9 Canada, we would clearly have to look at that.

10 Q. But at the moment that isn't one of
11 your evaluation criteria when you are presented with a
12 proposal?

13 A. That's correct.

14 Q. Now, in terms of structuring an
15 arrangement with a NUG, as I understand it, obviously
16 at least one sort of NUG, again I am not sure I have
17 got the labels right, I think you call it a purchase
18 NUG, sells power to your system?

19 A. Or the municipal utilities, yes.

20 Q. Or the municipal utility. But is a
21 supplier of power into the grid, either through a
22 municipal utility or to you directly?

23 A. That's correct.

24 Q. And as I understand the general
25 discussion, having heard it today, from your

1 perspective the pricing is set on the basis of
2 something called up to the avoided cost of power?

3 A. That's correct.

4 Q. From the seller's perspective, I take
5 it the seller gets a price which supplies to the seller
6 something that in the seller's view makes it economic
7 to produce the power?

8 A. That's correct.

9 Q. So if you have, let's say, a
10 privately-held NUG, the private owner is generating a
11 rate of return on the sale of power either to the
12 municipal utility or the system?

13 A. That's correct.

14 Q. So that that block of power, if you
15 can look at it notionally, is carrying with it the
16 creation of a rate of return to the owner of the NUG?

17 A. That's correct.

18 Q. Obviously, the use of the power by
19 Ontario Hydro is such that Ontario Hydro can continue
20 to say to its customers, we are supplying power at
21 cost, I take it, because part of your cost is the
22 purchase price of the power from the privately-owned
23 NUG?

24 A. The cost for us to negotiate would be
25 the avoided cost, and so therefore we can say that that

1 project meets or is cheaper than our avoided cost, yes.

2 Q. But within that there is a rate of
3 return being paid, isn't there?

4 A. To the developer, that's correct.

5 Q. Sir Adam Beck would roll over in his
6 grave, wouldn't he, because that's not what he meant by
7 supply of power at cost.

8 A. I can't answer that. (laughter)

9 Q. I don't ask you to.

10 It's a different notion, though, isn't
11 it? I mean, supply of power at cost, one of the
12 hallmarks of Ontario Hydro doesn't suggest the
13 provision of any rate of return, does it?

14 A. From the utility perspective it does
15 not.

16 Q. And indeed, Hydro doesn't calculate
17 its rates on the basis of the provision of any rate of
18 return at all, does it?

19 A. Hydro does not.

20 Q. Once we get into the business of
21 NUGs, there is a hidden rate of return being paid;
22 isn't there?

23 A. That's correct.

24 Q. And if NUGs got to be a big deal in
25 the system, you would be introducing a new element in

1 the costing of Hydro, whether that is a desirable thing
2 or not I suppose is for somebody else to say. Wouldn't
3 you agree?

4 A. That's part of the element of what
5 private power brings to the table, yes.

6 Q. Now, in terms of the regulation of
7 that exchange between the supplier, the NUG and Ontario
8 Hydro - forgive me, I ought to know this, I suppose -
9 but there isn't any mechanism to regulate apart from
10 Hydro's bargaining power on your end of things; is that
11 right? That is you say, here is our avoided cost and
12 we will pay you anything up to it but no more, period.

13 A. That's correct.

14 Q. Okay. And that's the way the
15 contract price is set?

16 A. It's through negotiations, that's
17 correct.

18 Q. You know what your ceiling is and you
19 won't go above it, but you are prepared to go below it
20 if you can pay less than your avoided cost.

21 A. That's correct.

22 Q. Okay. It is in a very real sense
23 though, isn't it, sir, a private sale by the NUG to you
24 in the sense that it is not regulated by any third
25 party. There is no regulatory mechanism to pass on the

1 fairness of that price, using fairness in a very loose
2 sense?

3 A. With respect to each individual
4 contract there is not.

5 Q. Well, with respect to any contract,
6 the individual or collective.

7 A. No, from a regulatory perspective
8 that's not. But in terms of managing the program
9 within the expectations of the corporation, then
10 obviously we have to account for the fact that we are
11 in total paying either full avoided cost for the
12 projects in total or less than.

13 Q. As you do with all your other costs,
14 they are in that sense regulated in some fashion.

15 A. That's correct.

16 Q. The Energy Board doesn't think so,
17 but I take it that's another issue.

18 Now, given that there is no direct
19 regulation, perhaps you and I can agree that there is
20 no direct regulation of the price, direct third party
21 regulation of the price set between the NUG and the
22 utility, isn't it, in your experience, a novel
23 circumstance to have this sort of product - and by this
24 sort I am thinking of products like natural gas, like
25 electricity - sold in a totally unregulated

1 environment, isn't that novel?

2 A. I think that if you are looking at
3 electrical or gas utility services, typically they
4 would be sold through regulated procedures of some
5 kind.

6 Q. Isn't that a planning concern as to
7 how much NUGs should be a part of the system? I mean,
8 we as a society have determined that the sale of these
9 products is going to be a regulated thing. To the
10 degree to which we get into NUGs, we are getting into a
11 new way of pricing product, a way that is deregulated.
12 Isn't that an important planning consideration as to
13 how much we ought to have NUGs?

14 MR. SNELSON: A. The issue as to whether
15 or not we would support NUGs was something that was
16 quite thoroughly debated in the preparation of the
17 demand/supply planning strategy, that was discussed in
18 front of two Select Committees of the Legislature, and
19 I believe that we have the support through that process
20 for increased reliance on NUGs.

21 Q. I am sure you do, sir. I wasn't
22 suggesting you didn't.

23 I just wondered whether in your view as
24 people charged with long-term planning for Hydro, at
25 least in this area, I couldn't get you to agree with me

1 that it was an important planning criteria, that it was
2 going to introduce a world where at least in this
3 little part of it you had unregulated sale of
4 electricity. Isn't that a planning criteria or
5 couldn't someone view it as a planning criteria?

6 A. It definitely changes the way in
7 which we do planning to some degree.

8 Q. Okay. Now, let me move from that
9 discussion to something perhaps a little more precise.

10 In your evidence in chief at page
11 12002 --

12 THE CHAIRMAN: Volume?

13 MR. GOUDGE: Volume 67, sir.

14 Q. You don't need to turn to it. It's a
15 relatively simple reference.

16 I understood you to say there, gentlemen,
17 that there were three areas, and I am paraphrasing
18 obviously, down near line 18, there are sort of three
19 areas of analysis that it is important to have in mind
20 in determining the sort of net desirability of NUGs,
21 there are social and environmental factors, there are
22 financial and economic factors and operating factors.
23 Is that a fair paraphrase of what you are saying there?

24 MR. VYROSTKO: A. Yes, we are talking
25 about some of the factors that have influence or will

1 continue to influence NUGs, yes.

2 Q. And factors that you sort of look to
3 in making your own planning projections about what is
4 best in terms of the relative usage of NUGs?

5 A. Yes, that's correct.

6 Q. I want to focus for a moment on how
7 you define probably two of the factors, the first two,
8 because I want to see if it includes one thing.

9 Just to let you know where I am coming
10 from, I am obviously here for Local 1000 and that's the
11 perspective from which I come.

12 You obviously are aware that Ontario
13 Hydro is a major employer in the province, there is no
14 question about that.

15 A. That's correct.

16 Q. You will agree with me they are a
17 good employer?

18 A. That's correct.

19 Q. Let the record show that was said
20 completely without hesitation. (laughter)

21 They have a collective agreement that
22 is - I think you would probably agree with me - seen to
23 be an example in the field, good example?

24 A. That's correct.

25 Q. In terms of things like wages and

1 working conditions, pensions, job security, pay equity,
2 those sorts of considerations, they provide substantial
3 benefits relative to other employers. I am not saying
4 they are perfect, my client wouldn't permit me to say
5 that, but they are good on all those subjects, aren't
6 they?

7 A. They are.

8 Q. To the extent they are good, they are
9 providing what one could view as a social benefit,
10 isn't that so?

11 A. In terms of the employment and all of
12 the elements that employment bring to the province,
13 yes, they would.

14 Q. In weighing the net benefit of NUGs,
15 wouldn't it be an important exercise to compare Hydro's
16 performance on that score as against the performance of
17 NUGs on that score?

18 A. I think one of the elements that has
19 to be considered is the contribution that NUGs would
20 make to development within the province, locally or
21 otherwise, that's correct.

22 Q. Using the criteria that you and I
23 discussed a few minutes ago, things like how good is
24 their collective agreement, if any, what kind of wage
25 rates do they provide, what kind of working conditions,

1 what kind of health and safety conditions, job security
2 and so on.

3 A. And, for instance, whether they bring
4 and stimulate local economies and --

5 Q. I am not suggesting these are the
6 only things. But I want to get you to agree with me
7 that these are appropriate things on a list that one
8 would use if one were doing a kind of net social
9 benefit analysis of which is better, to generate this
10 power with Hydro or generate this power with NUGs?

11 A. We have not been looking at those to
12 date.

13 Q. I know you haven't been looking at
14 them. I want to invite you to agree with me that you
15 should be looking at them.

16 A. Again, I guess right now that's not
17 one of the issues that we look at.

18 Q. Should you be looking at it?

19 A. I guess right now I am not sure why
20 we would necessarily look at those specific ones.

21 Q. Because they are social benefits
22 provided by Hydro and they are lost if you choose NUGs
23 rather than more Hydro?

24 A. Well, I would say that they wouldn't
25 be lost, but they would be provided by others.

1 Q. Only if you guaranteed the others did
2 so, and then to do that you would have to look and you
3 are not looking.

4 A. Well, no. But I would think that
5 employment brought by a NUG in fact does bring elements
6 of wages and employment and benefits associated with
7 that employer.

8 Q. But whether it's as good as the
9 counterpart with Hydro depends on a comparison, doesn't
10 it?

11 A. That's correct.

12 Q. And one you are not doing?

13 A. That's correct.

14 Q. Shouldn't you?

15 A. I don't think we should.

16 Q. Okay. Somebody else might think you
17 should.

18 A. Somebody else may, that's correct.

19 Q. Okay. Now, let me ask about another
20 kind of social factor at play. Isn't it true, perhaps
21 increasingly, that Ontario Hydro has been used as an
22 instrument of public policy, a vehicle for the delivery
23 of public policy? The example I am thinking of is
24 Ontario Hydro's extension of their uranium purchase
25 contracts at Elliot Lake. Would you agree with my

1 assertion that that is an example of Ontario Hydro
2 being used as a vehicle to implement public policy?

3 THE CHAIRMAN: That may be so, but it
4 doesn't relate to the NUG policy particularly.

5 MR. GOUDGE: Unless NUGs are not going to
6 be analyzed from the perspective of their ability to
7 deliver the same public policy.

8 I want to assert to this panel, sir, that
9 if one is going to do a cost benefit analysis and
10 compare how good NUGs are with how good Hydro is, then
11 one of the criteria one might use is the capacity of
12 each to deliver public policy on the direction of the
13 government. I don't know whether that is a good or bad
14 thing, but it's certainly a characteristic of Hydro.

15 THE CHAIRMAN: All right, continue that
16 line.

17 MR. GOUDGE: Q. Am I making myself
18 clear, sir?

19 MR. VYROSTKO: A. Yes, I think you are
20 making yourself clear.

21 Q. What do you say to the proposition
22 that one criterion that could be used to compare - for
23 planning purposes - to compare NUGs and their
24 desirability using your social or economic factors by
25 comparison to Ontario Hydro is the utility either

1 serves - utility is a lousy word - is the ability
2 either has to be used as a vehicle for the delivery of
3 public policy?

4 A. To some extent I believe that's being
5 recognized with the non-utility generation program
6 because the government policy has and is asking Ontario
7 Hydro to encourage non-utility generation. So I think
8 from that perspective, this program does move towards
9 that side.

10 Q. Let me try to avoid you getting away
11 from me by asking you: Let's assume a world where
12 there is a substantial proportion of the Ontario grid
13 being supplied by NUGs, I am not saying that that's
14 part of your planning exercise, you say there will be
15 31 megs by the year 2000 which a small proportion, I
16 know, of your grid. But to the extent you have NUGs as
17 your power source, not Ontario Hydro, I want to suggest
18 to you you have an entity, the NUGs, that is less
19 amenable to use as a deliverer of public policy than
20 you do with Ontario Hydro?

21 It's a complicated question, can you
22 agree with it?

23 A. I can agree with that.

24 Q. Okay. That's all I wanted to
25 establish on that score, sir.

1 Now, the final thing I want to ask you
2 about, gentlemen, has to do with something that appears
3 at page 11990.

4 THE CHAIRMAN: Same volume, 67?

5 MR. GOUDGE: Yes, sir.

6 Q. You were asked in chief to deal with
7 some of the reasons why Ontario Hydro might prefer NUG
8 generation at least using renewable resources or high
9 efficiency conversion technologies, and your initial
10 reason, starting at page 11990, line 7, if I can again
11 paraphrase, is essentially we can't do small things, or
12 we can't do them very well. Is that a fair paraphrase
13 of what you say there?

14 [4:38 p.m.]

15 MR. VYROSTKO: A. No, I guess I didn't
16 say we can't do anything well --

17 Q. You don't do them very well?

18 A. No, I think what I said is we've put
19 our attention -- and we have become very strong and
20 capable with respect to the large plants.

21 Q. Then you say to have a utility like
22 Ontario Hydro moving into build a small plant is not
23 very cost-effective.

24 A. That's correct.

25 Q. I took that to mean you weren't very

1 depending on the flights.

2 I understand Mr. Colborne would be able
3 to proceed and he is scheduled to go next. So I would
4 only wish to indicate to the Board that given the hour,
5 that I would expect to put my questions tomorrow as
6 expeditiously as I can when I'm here.

7 THE CHAIRMAN: I appreciate that and I
8 think we will have to do it that way. I'm sorry, but I
9 wouldn't want to rush you and we must stop at five
10 o'clock unfortunately.

11 MR. ALLISON: It may take some time for
12 transition from big business and big labour to little
13 native, so that we will be prepared for tomorrow.

14 THE CHAIRMAN: Thank you very much.

15 All right. We will adjourn then until
16 tomorrow morning at ten o'clock.

17 THE REGISTRAR: This hearing will adjourn
18 until ten o'clock tomorrow morning.

19 ---Whereupon the hearing was adjourned at 4:43 p.m., to
20 be reconvened on Thursday, October 31, 1991, at
21 10:00 a.m.

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